Comments

Public Ownership of Public Utilities: Have Stockholders Outlived Their Useful Economic Lives?

This Comment proposes that regulation is an inadequate response to the problems inherent in the private ownership of monopolies that provide basic necessities: gas, electricity, water, and to some extent, telephone service. Structural and legal analysis of utilities points to public ownership as the preferable response to these problems.

After a presentation of the legal basis for regulating these industries and of the limits placed on that regulation by the Supreme Court, this Comment will examine current rate regulation practices and their implications. First, some problems inherent in private ownership of utilities will be made explicit. Second, the validity of the traditional justifications for private ownership will be questioned in light of contemporary methods of utility construction financing. This Comment will suggest that utility stockholders are not earning their profits, but rather, are earning returns on ratepayer moneys, not shareholder investments. In particular, construction work in progress, allowance for funds used during construction, and various financing methods will be analyzed. Legislative, judicial, and administrative responses to public concern about these financing mechanisms will be surveyed.

This Comment will conclude that, given the United States Supreme Court's restriction on regulation and the integrality of profit motivation to private ownership, state regulation of privately owned utilities inadequately protects the public's interests. In addition, it will propose that stockholders, who at one time provided the capital necessary for growth, are currently dysfunctional within the utility industry. This Comment concludes that some form of public ownership is the only viable solution.

I. The Framework for Regulation

Two characteristics that make enterprises subject to regulation as public utilities make private ownership of those enterprises inappropriate. One of these characteristics is the essentiality and the relative nonsubstitutability of the service.[1] The other is that utilities are "natural" monopolies and the state supports their monopoly position.[2]

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1. Congressional Research Serv. for the House Comm. on Interstate & Foreign Commerce, 95th Cong., 1st Sess., The Electric Utility Sector: Concepts, Practices, and Problems 2-3 (1977).

2. *E.g.*, the state issues to a utility a certificate of public convenience and necessity, which gives a utility the sole right to serve a particular region if the utility submits to state regulation. U.S. Dep't of Energy, A Consumer's Guide to the Economics of Electric Utility Ratemaking 31, 33 (1980) [hereinafter cited as Utility Ratemaking].

Anyone who has spent a cold night without heat, has lacked hot water with which to wash, or has had a medical emergency arise while his or her phone was disconnected knows that the essentiality of these services is not exaggerated. The common need for services provided by utilities is analogous to what the Court described as "affected with a public interest" in *Munn v. Illinois*,[3] the landmark decision that laid the basis for public utility regulation.[4] This concept later was refined in *Wolff Packing Co. v. Court of Industrial Relations*,[5] which held that one test of whether a business is affected with a public interest was "the indispensable nature of the service and the exorbitant charges and arbitrary control to which the public might be subjected without regulation."[6]

The *Wolff* Court's fear of "exorbitant charges and arbitrary control" is a function of the second characteristic that makes enterprises subject to regulation—the perceived power of a monopoly. The monopoly position of utilities is promoted by the state because of utilities' tendency toward a natural monopoly. A natural monopoly provides a service or a good more economically when only one enterprise controls resource planning and demand for a particular market. This phenomenon is due to economies of scale and to physical limits inherent in the type of good or service.[7] Although the state authorizes the monopoly position of utilities, it recognizes that the combination of the profit motive and near-absolute control of a necessity would lead to unconscionable utility prices and practices in the absence of regulation.[8] The state perceives the problem with monopoly utilities to be lack of competition. The regulatory process attempts to produce the same economic results as would occur naturally in a competitively structured industry.[9] The state seeks to eliminate monopoly overcharges, not to eliminate profits.

The United States Supreme Court has mandated that utility rates must provide for profit if those rates are to withstand constitutional challenge under the fifth and fourteenth amendments, which prohibit the confiscation of property without due process.[10] In determining whether a rate mandated by a government agency is confiscatory or "just and reasonable," the Court in

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3. 94 U.S. 113 (1877).

4. *Id.* at 126–35.

5. 262 U.S. 522 (1923).

6. *Id.* at 538.

7. CONGRESSIONAL RESEARCH SERV. FOR THE HOUSE COMM. ON INTERSTATE & FOREIGN COMMERCE, 95TH CONG., 1ST SESS., THE ELECTRIC UTILITY SECTOR: CONCEPTS, PRACTICES, AND PROBLEMS 3–4 (1977); UTILITY RATEMAKING, *supra* note 2, at 29–30.

8. UTILITY RATEMAKING, *supra* note 2, at 31.

9. UTILITY RATEMAKING, *supra* note 2, at 19–20; Munkirs, Ayers & Grandys, *Rape of the Rate Payer: Monopoly Overcharges in the "Regulated" Electric Utility Industry*, 8 ANTITRUST L. & ECON. REV. 57, 58 (1976).

10. *See* Bluefield Water Works & Improvement Co. v. Public Serv. Comm'n, 262 U.S. 679 (1923). The text of the amendments is as follows: "No person shall be . . . deprived of . . . property, without due process of law; nor shall private property be taken for public use without just compensation." U.S. CONST. amend. V. "No State shall make or enforce any law which shall abridge the privileges or immunities of citizens of the United States; nor shall any State deprive any person of . . . property without due process of the law . . . ." U.S. CONST. amend. XIV, § 1.

Federal Power Commission v. Hope Natural Gas Co.[11] stated that the return to the utility "should be sufficient to assure confidence in the financial integrity of the enterprise, so as to maintain its credit and to attract capital."[12] This investor-oriented test is a reaffirmation of the test set out in *Bluefield Water Works & Improvement Co. v. Public Service Commission*[13]:

> A public utility is entitled to such rates as will permit it to earn a return on the value of the property which it employs for the convenience of the public equal to that generally being made at the same time and in the same general part of the country on investments in other business undertakings which are attended by corresponding risks and uncertainties . . . . The return should be reasonably sufficient to assure confidence in the financial soundness of the utility and should be adequate, under efficient and economical management, to maintain and support its credit and enable it to raise the money necessary for the proper discharge of its public duties.[14]

Hence, not only does the Supreme Court recognize the cost of attracting private capital as a cost of providing utility service, the Court makes the attraction of private capital, and thus the investor, the focus and criterion by which the fairness of rates is determined. The investor's rate of return is constitutionally protected, but the consumer's right to public utility service, either absolutely or at a reasonable price, is not. Since the investor's interests take priority over the consumer's in the process of rate determination, utility rates are set primarily to satisfy profit-motivated stockholders and creditors and only secondarily to protect the public from unconscionable prices.

This investor-oriented standard is what regulatory commissions must follow when determining utility rates, which are regulated on local, state, and federal levels. State regulatory commissions, which have quasi-judicial powers, regulate most retail sales of gas, electricity, water, and telephone service.[15] The Federal Energy Regulatory Commission (FERC) administers prices set by the Natural Gas Policy Act of 1978[16] for producers of gas and interstate pipeline companies and approves construction of interstate pipeline facilities.[17] FERC determines the rates and service standards for wholesale electricity sales,[18] reviews agreements for system interconnections, has authority over mergers of regulated utilities, and licenses hydroelectric power project construction and operation, except those owned by other federal agencies.[19] In addition, FERC issues orders concerning the Uniform System of Accounts[20] that it prescribes for the gas and electric utilities it regulates.

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11. 320 U.S. 591 (1944).
12. *Id.* at 603.
13. 262 U.S. 679 (1923).
14. *Id.* at 692-93.
15. E. CLEMENS, ECONOMICS AND PUBLIC UTILITIES 39 (1950).
16. 15 U.S.C. §§ 3301-3432 (Supp. II 1978).
17. 1979 FERC ANN. REP. 1-2.
18. Wholesale sales of electricity accounted for 13% of total United States electricity sales in 1979. *Id.* at 2.
19. *Id.*
20. *See generally* I. BARNES, THE ECONOMICS OF PUBLIC UTILITY REGULATION 249-54 (1942).

The Federal Communications Commission (FCC) regulates rates for interstate and foreign telephone service. FCC duties include approval of the construction and operation of facilities and the prescription of a Uniform System of Accounts for telephone carriers.[21] State and federal commission decisions are appealable to courts in their jurisdictions.[22] The courts review those decisions in light of statutory provisions[23] and state and federal constitutional standards.[24]

State commissions set rates by adding together earnings (profits) on the utility's rate base, operating expenses, taxes, and depreciation.[25] This equation determines the total revenues[26] the utility can collect from its customers:

$$\text{Total Revenues} = (\text{Rate of Return} \times \text{Rate Base}) + \text{Operation Expenses} + \text{Taxes} + \text{Depreciation.}[27]$$

Thus, the profit or total earnings, as opposed to total revenue, of a utility is determined by multiplying the rate of return (rate of profit) by the rate base.[28] The rate base is the amount or value of invested capital or property upon which the utility is entitled to compensation.[29] It includes plant, equipment, and land.[30] The rate of return represents the cost of capital; it is the rate of earnings for both debt and equity investors.[31] Utility profits increase if either

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21. 1979 FCC 45TH ANN. REP. 46.

22. UTILITY RATEMAKING, *supra* note 2, at 12.

23. *See, e.g.*, CAL. PUB. UTIL. CODE § 1757 (West 1975); UTAH CODE ANN. § 54-7-16 (1974) ("The review shall not be extended further than to determine whether the commission has regularly pursued its authority, including a determination of whether the order or decision under review violates any right of the petitioner under the Constitution of the United States or the state of Utah.").

24. *See, e.g.*, U.S. CONST. amend. V., amend. XIV, § 1.

25. UTILITY RATEMAKING, *supra* note 2, at 57.

26. The total revenues are allocated to customer class, *e.g.*, residential, industrial, and commercial. For each customer class revenues are divided among customer service charges, if any, and unit blocks, *e.g.*, first 500 kilowatt-hours, second 500 kilowatt-hours; or first 3 minutes of telephone call, each succeeding minute. Rate structure differentiations also may be made by the time of day or season during which the service is used. UTILITY RATEMAKING, *supra* note 2, at 120–21. *See generally* P. RODGERS, J. EDWARD SMITH, JR. & R. PROFOZICH, CURRENT ISSUES IN ELECTRIC UTILITY RATE SETTING 115–41 (1976) (published by National Association of Regulatory Utility Commissioners).

27. Another way of expressing this formula is:

$$R = C + Ir.$$

R represents the total revenue earned by a company through its tariff charges. C is a utility's expected cost for goods and services, including taxes and depreciation for the period the prospective tariff is in effect. I stands for the assets of a utility that are used but not consumed in business, *i.e.*, rate base. The rate of return allowed on both debt and equity capital is symbolized by r. Monongahela Power Co. v. Public Serv. Comm'n, 276 S.E.2d 179, 184 (W. Va. 1981).

28. UTILITY RATEMAKING, *supra* note 2, at 52.

29. The value of the property may be set at the original cost, *see, e.g.*, Pennsylvania Pub. Util. Comm'n v. Dusquesne Light Co., 43 Pub. Util. Rep. 4th (PUR) 27 (Pa. P.U.C. 1981); current fair market value, *see* Frankfurter, Hart & Henry, *Rate Regulation*, in THE CRISIS OF THE REGULATORY COMMISSIONS 10–13 (MacAvoy ed. 1970); replacement cost, *see* C. PHILLIPS, THE ECONOMICS OF REGULATION 232–38 (1969); or by a mix of valuation methods, *see, e.g.*, *In re* Southwestern Elec. Power Co., 43 Pub. Util. Rep. 4th (PUR) 417 (Tex. P.U.C. 1981).

30. UTILITY RATEMAKING, *supra* note 2, at 52.

31. *Id.* at 53–54.

the dollar amount of the rate base or the percentage rate of return is increased.[32]

II. Problems Attributable to Private Ownership of Utilities

Given this regulatory framework, four interrelated problems are attributable to the profit orientation of utilities: frequent and large rate increases, rate base inflation, uneconomical and shortsighted technological choices, and inadequate provision for those unable to pay standard rates for services. These problems contribute to the fundamental deficiency of private ownership of basic necessities: privately owned utilities do not and cannot provide these necessities to the public at the lowest price possible.

A. *Rate Increases*

From 1970 to 1980 the Consumer Price Index for gas and electricity rose 110.6 percent, while the overall Consumer Price Index rose 79.6 percent.[33] The average residential electric bill increased over 180 percent during the same period.[34] The cost of gas to residential customers increased over 240 percent from 1970 to 1980.[35]

Why these drastic utility price increases? The increases may be attributed in part to the general inflation rate and to the extraordinary price increases of some of the elements peculiar to the production of electricity or the provision of other utility services.[36] However, the rest can be attributed to increases in utility profits. The net income after expenses and taxes of tel-

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32. For example, if the rate base is $2 million and the rate of return is 10%, the total earnings of the company are $200,000 ($2,000,000 × .10 = $200,000). If the rate of return is increased to 12%, the company's total earnings would increase by $40,000 ($2,000,000 × .12 = $240,000). If the rate of return is left at 10%, but the rate base is increased to $3 million, the company's total earnings will again increase; with these figures earnings would increase by $100,000 ($3,000,000 × .10 = $300,000). Since expenses, including depreciation and income taxes, are figured separately as a component of the total revenue a utility can collect from its customers, a company can increase its profits by increasing either the rate of return or the rate base. If actual expenses exceed estimated expenses, less money will be available for dividends.

The amount of profit becomes just as relevant as the rate of profit to the evaluation of privately owned utilities because investors in utilities often earn a return on capital provided by consumers. Thus, in determining whether utility services are being provided at the lowest possible price, one must look not only to the rate of profit as a percentage return on the rate base. One also must examine the absolute amount of profit to see whether investors justifiably earn a return on capital provided by others, and whether any profit is justifiable in economic terms or if it is unnecessary to the provision of utility services.

33. 1980 U.S. DEP'T OF COMMERCE STATISTICAL ABSTRACT U.S. no. 807, at 486. From May 1980 to May 1981 the overall Consumer Price Index rose 9.8% and the price index for gas and electricity rose 13.9%. 1981 *id.* no. 780, at 467.

34. ENERGY INFORMATION ADMIN., U.S. DEP'T OF ENERGY, STATISTICS OF PRIVATELY OWNED ELECTRIC UTILITIES IN THE UNITED STATES 1980—CLASSES A AND B COMPANIES 35 (1981).

35. 1981 U.S. DEP'T OF COMMERCE STATISTICAL ABSTRACT U.S. no. 1021, at 592.

36. For example, the cost of uranium jumped from $6 to $40 a pound between 1973 and 1978. Scheff, *A Primer on the Energy Crisis*, LAB. UNITY, August 1978, at 9, 9. The average hourly employee earnings (before taxes) in the nonfarm business sector increased 75% between 1970 and 1980; the Consumer Price Index for gas and electricity rose 110% during the same period. 1981 U.S. DEP'T OF COMMERCE STATISTICAL ABSTRACT U.S. no. 677, at 405; *id.* no. 780, at 467.

ephone companies regulated by the FCC rose over 160 percent between 1970 and 1980;[37] in comparison, the overall Consumer Price Index rose 79.6 percent between those years.[38] American Telephone and Telegraph Company (A.T.&T.) and its principal telephone subsidiaries increased total dividends declared, excluding intercompany dividends, by over 166 percent from 1970 to 1980.[39] From 1971 to 1980 electric utility operating revenues less total operating expenses[40] (including all taxes paid) increased over 274 percent;[41] unappropriated retained earnings increased over 124 percent;[42] dividends declared on common stock increased over 184 percent; and dividends declared on preferred stock increased more than 314 percent.[43] From 1970 to 1980 gas utilities increased dividend payments a little more than 155 percent.[44]

Increases in utility prices larger than increases in prices of other consumer goods and services, accompanied by large increases in net income and declared dividends, indicate that a lion's share of increased utility rates can be attributed to private ownership. If the prices of labor and materials were the sole cause of utility price increases, no money would be available for the large increases in payments to stockholders. In fact, for a typical private utility, about one-fifth of all revenues is kept as profit.[45] Perhaps the most striking demonstration of how regulated private utilities reap huge profits is A.T.&T.'s February 2, 1982, announcement that its 1981 net income marked the highest profit ever recorded by any company in the world.[46] "The company attributed its financial success to higher telephone rates. State and federal regulators had allowed A.T.&T. rate hikes totalling $4.2 billion in 1981, compared with $2 billion in 1980."[47] Clearly, even when restrained by regulation, private enterprise works, but for whom?

B. *Rate Base Inflation*

Since utility profits are determined by multiplying the rate base by the rate of return,[48] a utility is advantaged by increasing the dollar amount of the rate base. For example, if a utility has a choice between a plant that costs three million dollars and two plants that each cost fifty million dollars, the utility will benefit shareholders by choosing the two fifty million dollar plants.

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37. 1981 U.S. DEP'T OF COMMERCE STATISTICAL ABSTRACT U.S. no. 953, at 560.
38. 1980 *id.* no. 807, at 486.
39. 1981 *id.* no. 952, at 560.
40. Total Operating Expenses = Operation Expenses + Depreciation + Taxes. UTILITY RATEMAKING, *supra* note 2, at 78.
41. ENERGY INFORMATION ADMIN., U.S. DEP'T OF ENERGY, STATISTICS OF PRIVATELY OWNED ELECTRIC UTILITIES IN THE UNITED STATES 1980—CLASSES A AND B COMPANIES 8 (1981).
42. *Id.* at 32.
43. *Id.*
44. 1981 U.S. DEP'T OF COMMERCE STATISTICAL ABSTRACT U.S. no. 1020, at 592.
45. *Shorts*, POWER LINE, August 1979, at 2.
46. *A.T.&T.'s '81 Net is World Record*, N.Y. Times, Feb. 3, 1982, § IV, at 1, col. 3.
47. 42 FACTS ON FILE 231A1, no. 2159 (WORLD NEWS DIGEST) (April 2, 1982).
48. *See supra* note 28 and accompanying text.

Assuming a constant nine percent rate of return, a utility will earn nine million dollars if it chooses the more expensive option, rather than two hundred and seventy thousand dollars if it invests in the less expansionary and less expensive alternative.[49] The larger the rate base, the larger the profits.

The rate base increases with each addition of plant or equipment. These additional assets are justified if they are necessary to improve services and to meet customer demands. At a minimum, utilities generally are required to provide adequate service to all patrons.[50] For electric utilities this translates into a requirement of reliability—the ability of a utility to meet demand at any given time.[51] Most American utilities theoretically are designed on the assumption of one generating outage of several minutes to several hours every ten years.[52] A system's reliability usually is measured by its reserve margin: the excess of generating capacity over peak load demand.[53] Since generating capacity is considered a function of plant and equipment,[54] the electric industry has tied the reliability of its service to its rate base. A congressional study criticized this focus, noting that transmission and distribution system breakdowns are responsible for more power failures than is insufficient generating capacity.[55] The study also pointed out that other factors which contribute to reliable service often are ignored or discounted: regional interconnections of electric systems, technical improvements in the components of power systems rather than parallel capacity, and the use of computers to contain system problems by assessing and correcting complex malfunctions in a shorter time than could humans.[56]

The primary element in planning for reliability is a projection of demand.[57] Greater demand necessitates greater generating capacity. The demand projections of investor owned utilities are overstated consistently.[58] Utilities have admitted to being overly "optimistic" and have revised downward their ten-year forecasts of average annual growth in peak demand by over fifty-five percent since 1974.[59] A congressional study on excess generat-

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49. Since financing of construction can be achieved with a combination of ratepayer moneys and external funds, the interest on which is borne by ratepayers, the size of the investment does not concern the shareholders in this respect. *See infra* note 99 and accompanying text.

50. W.K. JONES, REGULATED INDUSTRIES 288 (1976).

51. CONGRESSIONAL RESEARCH SERV. FOR THE HOUSE COMM. ON INTERSTATE & FOREIGN COMMERCE, 96TH CONG., 1ST SESS., ARE THE ELECTRIC UTILITIES GOLD PLATED? A PERSPECTIVE ON ELECTRIC UTILITY RELIABILITY 2 (1979).

52. *Id.* at 7.

53. Peak load demand is the demand for the maximum amount of electric power placed on the system at any one time. UTILITY RATEMAKING, *supra* note 2, at 229.

54. CONGRESSIONAL RESEARCH SERV. FOR THE HOUSE COMM. ON INTERSTATE & FOREIGN COMMERCE, 96TH CONG., 1ST SESS., ARE THE ELECTRIC UTILITIES GOLD PLATED? A PERSPECTIVE ON ELECTRIC UTILITY RELIABILITY 21 (1979).

55. *Id.* at 19.

56. *Id.* at 20.

57. UTILITY RATEMAKING, *supra* note 2, at 183.

58. NATIONAL AMERICAN ELEC. RELIABILITY COUNCIL, ELECTRIC POWER SUPPLY AND DEMAND 1982–1991, at 5 (1982).

59. *Id.*

ing capacity noted that "[i]nasmuch as the utility industry generally perceives overcapacity as a lesser evil than undercapacity, there is a tendency to inflate future reserve margins in planning the growth of the systems as a hedge against resumed growth."[60] While the difference between a 4.2 percent and a 7 percent projected annual growth in demand may seem small, it translates into a highly significant 66 percent difference in generating capacity required to meet that demand.[61]

Despite the tremendous cost of construction for additional capacity, utilities are loath to curtail their construction programs in line with ever lower demand forecasts,[62] in part because rate bases and subsequently profits are inflated with every addition to generating capacity. If construction work in progress[63] is included in rate bases, which permits use of consumer money in lieu of stockholder money to finance construction, utilities have an added incentive to overbuild.[64]

And overbuilt they have. An eighteen to twenty percent reserve margin is more than adequate for most electric utility systems.[65] A congressional study noted that if average annual energy consumption grew at a maximum of five percent from 1977 to 1986, and if virtually no new starts in plant construction were made after 1979, no area of the country would have less than a twenty percent reserve margin in 1986, and six would have twenty-five percent or more.[66] The annual growth in electricity use dropped from 5.2 percent in 1977 to 3.9 percent in 1978 and leveled off to about 2 percent in 1979 and 1980.[67] Utilities now are projecting an annual growth rate in peak demand of only 3.4 percent.[68] Nevertheless, they continue to plan and construct for additional

60. CONGRESSIONAL RESEARCH SERV. FOR THE HOUSE COMM. ON INTERSTATE & FOREIGN COMMERCE, 96TH CONG., 1ST SESS., ARE THE ELECTRIC UTILITIES GOLD PLATED? A PERSPECTIVE ON ELECTRIC UTILITY RELIABILITY 24 (1979).

61. The plant capacity planned to meet a 7% demand increase would mean a 66% increase over that planned for a 4.2% demand growth since 7% is 66% larger than 4.2% and thus would require the equivalent amount of increased capacity to meet the larger demand.

62. In 1979 projected average annual growth in peak demand dropped over 9.4% from the previous year's projection. However, the utilities decreased their projections of new capacity by only about 7.3%. NATIONAL AMERICAN ELEC. RELIABILITY COUNCIL, ELECTRIC POWER SUPPLY AND DEMAND 1982–1991, at 5 (1982); U.S. DEP'T OF ENERGY, ADDITIONS TO GENERATING CAPACITY 1979–1988 FOR THE CONTIGUOUS UNITED STATES 5 (1979).

63. Under this accounting method the value of incomplete construction is included in the rate base. The shareholders thus earn a current return on plant not yet in service. *See infra* text accompanying note 99.

64. CONSUMERS OPPOSED TO INFLATION IN THE NECESSITIES, THERE ARE ALTERNATIVES 35 (1979) (Consumer group is based in Washington, D.C.).

65. *See generally* CONGRESSIONAL RESEARCH SERV. FOR THE HOUSE COMM. ON INTERSTATE & FOREIGN COMMERCE, 96TH CONG., 1ST SESS., ARE THE ELECTRIC UTILITIES GOLD PLATED? A PERSPECTIVE ON ELECTRIC UTILITY RELIABILITY (1979); Morris & Levin, *Addressing the "Excess Capacity" Issue*, PUB. UTIL. FORT., March 12, 1981, at 23 (argument of Ohio Public Utilities Commission staff); Navarro, *The Soft, Hard, or Smart Path: Charting the Electric Industry's Future*, PUB. UTIL. FORT., June 18, 1981, at 25, 26 (traditional rule of thumb is 20% maximum).

66. CONGRESSIONAL RESEARCH SERV. FOR THE HOUSE COMM. ON INTERSTATE & FOREIGN COMMERCE, 96TH CONG., 1ST SESS., ARE THE ELECTRIC UTILITIES GOLD PLATED? A PERSPECTIVE ON ELECTRIC UTILITY RELIABILITY 37 (1979).

67. 1980 U.S. DEP'T OF COMMERCE STATISTICAL ABSTRACT U.S. no. 1042, at 610; *Fourth Quarter 1980*, 1981 U.S. ENERGY INFORMATION AD. Q. REP.: ENERGY INFORMATION 3.

68. NATIONAL AMERICAN ELEC. RELIABILITY COUNCIL, ELECTRIC POWER SUPPLY AND DEMAND 1982–1991, at 5 (1982).

capacity.[69] A comparison of the actual figures for demand growth and plant construction with the assumptions made in the congressional study implies that by 1986 the country will be saddled with a large amount of excess capacity.

The above summary relates to electric enterprises. The reasoning, however, applies to other utilities as well. As long as additions to rate base increase profits, and as long as those additions and the profit concept remain largely unquestioned by regulatory agencies and the courts,[70] rate bases will be inflated and utility prices will skyrocket.

C. *Tunnel-Vision Choice of Technology*

Just as unnecessary additions to capacity inflate the rate base, so does the choice of unduly capital-intensive technology. Unlike wages, which are operation expenses, technology is part of the rate base and increases the value of the assets on which shareholders earn returns.

> Present regulatory processes not only provide little incentive for management to economize on resources, but would seem systematically to encourage the profligate use of certain resources. Where returns are allowed on all capital in the rate base—that is, all capital that is considered to be a functional part of the utility plant—there is a temptation for management to inflate the capital base. Capital-saving innovation would be shunned in favor of capital-using innovation.[71]

This choice has an impact on employment and capital allocation in our economy. Two billion dollars invested in energy conservation and solar power would provide four times as many jobs as would be provided if it were invested in nuclear reactors.[72] The economics of nuclear power are so bad that the environmental and safety arguments are fast becoming secondary.[73] Not only are construction costs higher than for coal-fired plants, but once constructed, nuclear generators normally operate slightly more than half of the time.[74] Cleanup costs for nuclear mishaps can be phenomenal.[75] Yet util-

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69. U.S. DEP'T OF ENERGY, ADDITIONS TO GENERATING CAPACITY 1979–1988 FOR THE CONTIGUOUS UNITED STATES 3–5 (1979).

70. The Michigan Supreme Court recently ruled that state law does not provide for financing programs for construction to be reviewed by considering whether new generating capacity is needed and any attempts to do so were improper. Attorney Gen. v. Michigan Pub. Serv. Comm'n, 412 Mich. 385, 316 N.W.2d 187 (1982). *See also infra* note 172.

71. Gies, *The Need for New Concepts in Public Utility Regulation*, in UTILITY REGULATION, NEW DIRECTIONS IN THEORY AND PRACTICE 88, 97 (W. Shepherd & T. Gies ed. 1966).

72. R. GROSSMAN & G. DANEKER, ENERGY, JOBS AND THE ECONOMY 71 (1979). Not only does nuclear power create fewer jobs, but those jobs it does create require highly skilled personnel. The ratio of tradespeople to professional scientists or technicians is two to one for nuclear power, and nine to one for solar energy. *Id.*

73. Scheff, *A Primer on the Energy Crisis*, LAB. UNITY, August 1978, at 9, 10. *See also* Haines & Moyer, *"No Nukes" is Not Enough*, PROGRESSIVE, March 1981, at 34.

74. *See, e.g., New Plan Offered on 9-Mile A-Plant*, N.Y. Times, Feb. 28, 1982, at 43, col. 1 (overruns on nuclear plant increased its cost over 10 times the amount originally projected when construction began in 1974); *A Record Rate Rise for Jersey Utility*, N.Y. Times, Feb. 12, 1982, at 1, col. 5 (utility granted its largest rate increase ever so that it could complete nuclear generating station; original cost estimate was $250 million, Board of Public Utilities now estimates $3 billion); *Rate Rise Granted Atlantic Electric*, N.Y. Times, Jan. 23, 1982, at 26, col. 6 (rate increase to cover costs of investment in and operation of nuclear power plant).

ities favor nuclear technology for the same reason consumers oppose it: nuclear technology is expensive and is a huge boost to the rate base and consequently to utility profits.[76]

Choice of technology—whether it relates to generating electricity or to triggering telephone shut-off notices—involves societal and not solely stockholder interests. Cost efficiency, employment, capital allocation priorities, quality of service, and quality of life all should be considered in the selection of technology. Instead, because privately owned utilities have profit maximization as their primary goal, the choice of technology often is dependent on how the technology will affect the rate base.

D. *Providing for the Poor*

Regulation is said to be a substitute for competition.[77] Competition theoretically lowers the prices of goods and services, yet does not place those goods and services within the reach of the poor. As noted, one of the reasons the state regulates utilities is because they are considered essential.[78] Since this nation presumably has chosen to provide persons with the essentials of life, what some call the safety net,[79] regulation should go beyond the imitation of competitive capitalism. Although some commentators write of the distributive function of utility rates,[80] rate regulation has done an unsatisfactory job of distributing services to those unable to pay the ever-increasing rates. Concern about this problem peaked in 1978 and 1979, when consumer groups across the country pressed for a ban on winter shut-offs of gas and electricity using the slogan, "No One Should Freeze to Death Again."[81] The major arguments of utilities against a winter shut-off ban were that they would lose too much money and that utilities are not social service agencies.[82] Instead, utilities suggested that government foot the bill.[83]

Nuclear power plants in 1978 had a 55% average capacity factor (the ratio of the plant's actual annual production to the production it would have achieved had it operated all year at full capacity). HOUSE COMM. ON GOV'T OPERATIONS, NUCLEAR POWER COSTS, H.R. REP. NO. 1090, 95th Cong., 2d Sess. 27 (1978).

75. The cost of decontaminating Three Mile Island is estimated at $1.1 billion, only $340 million of which is covered by insurance. *Three Mile Island Marks Third Year of Bad News*, N.Y. Times, March 28, 1982, at 28, col. 1. However, the federal government (hence the taxpayers) has agreed to remove and dispose of the most dangerous portion of the contaminated reactor. *U.S. Signs Pledge to Aid Three Mile Island Work*, N.Y. Times, April 8, 1982, at 16, col. 5.

76. Between 1970 and 1979 privately owned utilities increased their nuclear generating capacity by over 700%. 1980 U.S. DEP'T OF COMMERCE STATISTICAL ABSTRACT U.S. no. 1046, at 613.

77. J. BONBRIGHT, PRINCIPLES OF PUBLIC UTILITY RATES 93–94 (1961).

78. *See supra* notes 1–6 and accompanying text.

79. *E.g.*, *The Big Holes in the Safety Net*, N.Y. Times, Aug. 23, 1982, at A17, col. 1.

80. J. BONBRIGHT, PRINCIPLES OF PUBLIC UTILITY RATES 58–62 (1961); W.K. JONES, REGULATED INDUSTRIES 77 (1976).

81. *See, e.g.*, Citizen/Labor Energy Coalition, Campaign on Utility Rate Reform (Oct. 12, 1978) (National headquarters of the Coalition is in Washington, D.C.).

82. Telephone interviews with representatives of Public Service Electric & Gas Co., Hackensack, New Jersey (Winter 1978–79).

83. The federal government responded favorably to utility suggestions and established the Low-Income Energy Assistance Program to pay for some of the heating bills of low-income persons. State governments also participated in programs to pay utility bills for low-income families. For example, in 1981 New York, with moneys from the federal program, granted utilities an average of $180 per household. N.Y. Times, Feb. 14, 1982,

Privately owned utilities act self interestedly. They will not provide services voluntarily without a monetary return. The courts no doubt would find a statute or commission order to provide services free of charge an unconstitutional violation of the fifth and fourteenth amendments' commands that private property not be taken for public use without just compensation.[84] Since the courts seem to regard dividends on stock as a cost that rates must cover to be just and reasonable,[85] "mere" compensation for the expense of providing the services—excluding the capital costs of equity ownership—would not appear to fit the Constitution's criterion of just compensation as currently interpreted.

The question then becomes whether it is rational for the government, and therefore the public, to allocate money not only for the poor but also for utility stockholders, in the form of a profit on services provided to the poor. An alternative is public ownership, which would allow utilities to provide services to the poor at a lower cost to all consumers. Granted, whether through tax dollars or by raising other customers' rates, service to the poor must be subsidized directly or indirectly by consumers. However, only the cost of service, and not the cost of equity, need be paid to a publicly owned utility. Since the added cost of profit is eliminated, government could cut its own costs without cutting services.

III. Public Utility Financing and the Missing Justifications for Private Ownership

The significant service and price problems inherent in the private ownership of utilities[86] lead one to question the traditional justifications for private ownership. Typical justifications are the following: (1) stockholders provide the necessary capital for investment and expansion,[87] (2) private ownership more efficiently allocates available resources, and any inefficiency caused by the utilities' monopoly position can be controlled through regulation,[88] and (3)

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at 46, col. 1. *See also* Christian Sci. Monitor, Jan. 14, 1982, at 4; N.Y. Times, Dec. 19, 1981, at 10, col. 5; N.Y. Times, April 26, 1981, § XI, at 26, col. 5; N.Y. Times, Jan. 19, 1981, § II, at 3, col. 2; N.Y. Times, Feb. 21, 1980, at 1, col. 3.

84. *See* Federal Power Comm'n v. Hope Natural Gas Co., 320 U.S. 591, 603 (1944) (rates must provide for a fair rate of return). This, of course, assumes that the rates of other consumers will not be raised to pay for the services provided free to the poor.

85. Bluefield Water Works & Improvement Co. v. Public Serv. Comm'n, 262 U.S. 679, 690 (1923).

86. Increased profits are an incentive to raise rates, to overexpand, and to choose capital-intensive technology. Whatever shortcomings, such as inaccurate demand forecasting, publicly owned utilities share with investor owned utilities, publicly owned utilities lack the profit orientation that makes certain conduct appealing. Furthermore, regulation cannot ensure that utility services will be provided at the lowest possible cost to the public because the Supreme Court has interpreted the Constitution as mandating a fair rate of return to utility investors. Thus, cost of equity prevents regulators from lowering utility prices to their bare minimum—actual cost of service. If cost of equity was eliminated from rates, investors would abandon private ownership of utilities. Without the opportunity to profit from their investments, rational capitalists withhold their capital.

87. C. SNYDER, CAPITALISM THE CREATOR 121–22 (1940); P. SAMUELSON, ECONOMICS 48 (8th ed. 1970).

88. P. SAMUELSON, ECONOMICS 602 (8th ed. 1970).

privately owned business operates in the best interests of not only shareholders, but their customers and communities.[89]

In examining these justifications, this Comment will analyze various methods of financing utility construction to determine whether stockholders are providing the capital on which they earn returns. Since profit is a return to shareholders and creditors on investment, it is logical to focus on rate-setting techniques that determine who provides capital for investment to ascertain whether shareholders are justified in earning profits and whether the shareholders are necessary to utility operation. Judicial, administrative, and legislative responses to the use of construction work in progress and alternate ratemaking techniques will be examined to determine whether stockholders are providing capital in a way that yields an efficient allocation of resources in the public interest.

A. *The Relationship Between Financing Methods and Rates*

The manner in which a utility finances its construction is reflected in the rates it charges. For example, if debt is incurred to finance construction, this capital cost will be reflected in the amount of the rate of return.[90] Each granted request for money to finance new construction projects entails another rate increase. Rate increases are determined in the following manner.

Step 1. A test year is chosen, usually the year immediately preceding the rate request.[91] Total operating expenses[92] are calculated from the year's operating expenses adjusted for unusual occurrences and foreseeable deviations from test-year expenses.[93] For example, if the utility is expanding its service territory, expenses will be increased to account for the additional costs of billing and maintenance. The regulatory agency then determines what property is included in the rate base and sets a dollar value for that rate base.[94] It also determines a fair rate of return for investors in the utility.[95] The rate base is multiplied by the rate of return, and this amount is added to total operating expenses to arrive at the total revenues of the company. In equation form:

$$\text{Total Revenue} = (\text{Rate Base} \times \text{Rate of Return}) + \text{Operation Expenses} + \text{Taxes} + \text{Depreciation.}^{96}$$

89. *Id.* at 601; *see also* ADAM SMITH, AN INQUIRY INTO THE NATURE AND CAUSE OF THE WEALTH OF NATIONS 423 (Modern Library ed. 1937).

90. *See supra* note 27 and accompanying text.

91. One definition of a test year is any 12-month period used by a regulatory commission to evalute the rate base, depreciation, taxes, and operating expenses of a utility. It may be the most recent 12 months, the most recent calendar year, or some combination of past and future months. UTILITY RATEMAKING, *supra* note 2, at 221.

92. Total Operating Expenses = Operation Expenses + Depreciation + Taxes. *Id.* at 61, 77.

93. E. CLEMENS, ECONOMICS AND PUBLIC UTILITIES 127 (1950). *See generally* J. BRYANT & R. HERRMANN, ELEMENTS OF UTILITY RATE DETERMINATION 191–213 (1940).

94. UTILITY RATEMAKING, *supra* note 2, at 52.

95. *Id.* at 53.

96. *Id.* at 57.

Step 2. Total revenue, the total amount of money a utility is authorized to collect from its customers, is compared with the total income the company would receive under its present rates. Total income is subtracted from the total revenue figure determined in step one to arrive at the revenue requirement or revenue deficiency of the company.[97] Total Revenue − Total Income = Revenue Deficiency. This revenue deficiency is the amount of the rate hike.[98]

B. *Construction Work in Progress with and Without Offset to Income*

One method of financing construction is through the placement of construction work in progress in the rate base. Construction Work in Progress (CWIP) represents facilities that are incomplete and not yet in service. Regulatory agencies usually treat it in one of two ways. One way is to include CWIP in the rate base and to permit utilities to receive income on plant not yet operational. This method allows companies to recover the costs of capital invested in construction work before the new facilities provide any service.[99] The other way, generally followed by FERC and by some states,[100] allows CWIP in the rate base but offsets it by including in income funds used during construction. This is called allowance for funds used during construction (AFUDC). It is determined by multiplying CWIP by a percentage that is meant to reflect capital costs as determined by the regulatory agency. The AFUDC is counted as an income item and, therefore, is subtracted from the total revenue requirement, effectively offsetting the return on CWIP.[101]

On the company's balance sheet a percentage of CWIP may be maintained as a separate asset account. This account denotes the return privately owned utilities must pay on long-term assets.[102] This AFUDC account, though treated as income, is a noncash item.[103] The amounts allowed are added to the cost of work in progress each year until the plant is placed in service, at which time both CWIP and AFUDC become part of the rate

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97. J. BAUER, UPDATING PUBLIC UTILITY REGULATION 1 (1966).

98. *See* L. NASH, THE ECONOMICS OF PUBLIC UTILITIES 120 (2d ed. 1931). *See generally* E. CLEMENS, ECONOMICS AND PUBLIC UTILITIES 52 (1950); C. PHILLIPS, THE ECONOMICS OF REGULATION 129-31 (1969).

99. COMPTROLLER GENERAL, U.S. GOV'T ACCOUNTING OFFICE, CONSTRUCTION WORK IN PROGRESS ISSUE NEEDS IMPROVED REGULATORY RESPONSE FOR UTILITIES AND CONSUMERS at ii (1980).

100. *E.g.*, Alaska, Hawaii, Idaho, Maine, Massachusetts, Montana, North Dakota, Rhode Island, Wisconsin, Wyoming. Chart of the National Association of Regulatory Utility Commissioners, at 416 (1979) (The Association is based in Washington, D.C.).

101. P. RODGERS, J. EDWARD SMITH, JR. & R. PROFOZICH, CURRENT ISSUES IN ELECTRIC UTILITY RATE SETTING 65, 70 (1976) [hereinafter cited as CURRENT ISSUES].

In determining the amount of a rate hike, total income is subtracted from a new determination of total revenue based on the test year: Total Revenue − Total Income = Revenue Deficiency (Rate Hike). Any increase in rate base, *e.g.*, CWIP, increases the total revenue determination, and so increases the rate hike. Any increase in total income, *e.g.*, AFUDC, will decrease the amount that is granted as a rate hike.

102. Joskow, *Financing the Future Growth of the Electric Power Industry*, in PROCEEDINGS OF WORKSHOP ON ELECTRIC UTILITY FINANCIAL PROBLEMS AND POTENTIAL SOLUTIONS 58 (M. Kahn ed. 1976).

103. Noncash income, of course, will not improve a company's cash flow. Companies that need cash on hand to meet expenses will want the immediate return of CWIP, rather than the noncash income of AFUDC.

base.[104] The accumulated interest (AFUDC) thus increases the asset value of the plant,[105] allowing the utility to earn a return not only on the asset itself, but on the capital costs of producing the asset.

1. *The Case for a Current Return on Construction Work in Progress*[106]

The utility industry is facing severe financial difficulties in attracting the capital to maintain construction programs to meet future service demands.[107] In the early 1960s electric utilities financed about forty percent of their plant expansion through outside lending markets. By 1980 that figure had advanced to two-thirds of plant expansion.[108] The rising cost and difficulty of attracting new capital is attributed to the longer time between the expenditure and the cost recovery and to the lower quality of utility earnings that result from the inclusion of AFUDC in the rate base.[109] Since AFUDC is a noncash item, stockholders and investors are unwilling to recognize AFUDC as earnings. Stock prices fall and interest rates rise when the utilities experience cash-flow problems, because they theoretically have less cash on hand to distribute as dividends or to ensure that interest payments are met.[110]

Utilities also claim that although they are forced to meet service obligations, they are not permitted to earn a return on the capital tied up in construction to meet those obligations. Courts approving the inclusion of CWIP in the rate base cite this type of reasoning.[111]

Since utilities attempt to maximize the amount of investment on which a current return will be received, the use of AFUDC creates a bias against capital-intensive technology. If the utilities' claim that capital-intensive technologies are efficient and provide cost savings to consumers is accepted,[112] this bias is seen as resulting in higher overall rates.[113]

Likewise, the use of AFUDC increases utility rates more than CWIP

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104. CURRENT ISSUES, *supra* note 101, at 65.

105. Joskow, *Financing the Future Growth of the Electric Power Industry*, in PROCEEDINGS OF WORKSHOP ON ELECTRIC UTILITY FINANCIAL PROBLEMS AND POTENTIAL SOLUTIONS 56 (M. Kahn ed. 1976).

106. The author does not support the proposition that Construction Work in Progress should be included in the rate base.

107. CURRENT ISSUES, *supra* note 101, at 71. Utilities, however, overproject growth in demand, which results in unnecessary construction. *See supra* text accompanying notes 57–69.

108. UTILITY RATEMAKING, *supra* note 2, at 184.

109. UTILITY RATEMAKING, *supra* note 2, at 186; CURRENT ISSUES, *supra* note 101, at 71–76. *But see supra* text accompanying notes 39–44 (statistics on dividends).

110. UTILITY RATEMAKING, *supra* note 2, at 186; CURRENT ISSUES, *supra* note 101, at 71–76.

111. *E.g.*, Potomac Elec. Power Co. v. Public Serv. Comm'n, 380 A.2d 126, 157 (D.C. 1978) (Yeagley, J., dissenting), *rev'd on rehearing*, 402 A.2d 14 (D.C.), *cert. denied*, 444 U.S. 926 (1979).

112. *E.g.*, C. LUCE, 155 YEARS OF TECHNOLOGICAL EXCELLENCE 17–18, 20–21 (1979) (author was chairperson and chief executive officer of Consolidated Edison Company of New York). The claim that capital-intensive technology, particularly nuclear power, is cost efficient seems incredible in light of the known costs of this technology. *See supra* text accompanying notes 72–76. For example, Long Island Light Company (LILCO) started an advertising campaign, with a potential price tag of $800,000, espousing the benefits of nuclear power. The campaign emphasized reduced reliance on foreign oil, not lower electric bills. The public relations campaign began after LILCO was found to have the second highest electric rates in the country and after Suffolk County authorized a public takeover feasibility study. N.Y. Times, April 19, 1982, § II, at 2, col. 1.

113. UTILITY RATEMAKING, *supra* note 2, at 187.

without offset because it capitalizes the cost of raising money (*i.e.*, the interest and dividends associated with the construction work[114]). The interest and dividends, in addition to the plant itself, become part of the utility's rate base while the plant is in service.[115] CWIP without offset is removed from the rate base when the plant is placed in service: the cost of raising money is no longer part of the plant valuation. Since a plant usually is in service longer than the time it takes to build it, the shareholders earn a return on capital costs for, say, thirty-five years under AFUDC, rather than ten years under straight CWIP.[116] For example, if PC is the cost of the plant itself and KC is the cost of capital associated with the plant, straight CWIP can be expressed as (10 × KC) + (35 × PC × rate of return), in which 10 is the number of years for construction and 35 is the useful life of the plant. AFUDC can be expressed as 35 × (PC + KC) × rate of return. In both cases the amount included in the rate base—PC or (PC + KC)—is amortized over the life of the plant.[117] CWIP provides an early return on capital and a smaller return once the plant is in use; AFUDC provides a postponed and larger return once the plant is in service.

Supporters of straight CWIP also claim that since investors prefer CWIP without offset, investors are willing to provide money to a utility with straight CWIP at lower rates, thereby presenting another cost savings to customers.[118]

2. *The Case Against Construction Work in Progress Without Offset*

CWIP provides money to a utility by increasing earnings, which are subject to income tax. Revenues collected from customers are increased to include taxes for which the utility is liable.[119] CWIP thus requires customers to contribute two dollars for every one dollar made available for construction purposes: one dollar for taxes, one dollar for construction.[120] This process may be contrasted to the raising of capital through the sale of securities: every dollar raised is equal to one dollar available for construction.[121]

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114. Legislative Util. Consumers' Council v. Public Serv. Co., 119 N.H. 332, 336, 402 A.2d 626, 629 (1979).

115. As the cost of the plant allocated to rate base is reduced through depreciation, so the amount of interest and dividends in the rate base associated with that plant is reduced as the years progress.

116. CURRENT ISSUES, *supra* note 101, at 73.

117. *Id.* at 65.

118. UTILITY RATEMAKING, *supra* note 2, at 54.

119. *Id.* at 65. Total Revenue = (Rate Base × Rate of Return) + Operation Expenses + Depreciation + Taxes.

> To the extent that income taxes are considered by commissions as ordinary business expenses and hence included in [Total Operating Expenses], regulated industry investors receive preferential treatment. In unregulated industries, income taxes are taken from the total earnings of a company after ordinary costs of doing business are accounted for.
>
> When income taxes are treated as costs, an automatically increasing spiral is built into utility rates. Higher rates due to taxes bring higher earnings, which bring higher taxes, which raise costs again.

Id. at 72.

120. CURRENT ISSUES, *supra* note 101, at 88.

121. *Id.* at 90. Of course, these dollars carry with them the future obligation of interest payments or dividends.

A second argument against straight CWIP is that it forces present ratepayers to pay for facilities they may never use because of their own relocation or death, or the cancellation of the plant.[122] CWIP violates intergeneration equity,[123] which posits that current ratepayers should pay only for the cost of service attributable to them, not that cost attributable to future ratepayers.

"Used and useful" is a similar concept. Most states provide that property to be included in the rate base on which shareholders may earn a return must be "used and useful" in the public service[124] or "used or required to be used" in a utility's services to the public.[125] Construction work in progress is not used by or useful to current ratepayers. Courts that agree with state regulatory commission decisions to include CWIP in the rate base extend the concept of used and useful to include the public's interest in the utility attracting capital to meet increased demands for improved services.[126] These courts also note that property held for future use is allowed in the rate base.[127] Courts that agree with commission exclusion of CWIP use a more literal definition of used and useful and of the public interest.[128]

The liberal interpretation of used and useful that accompanies CWIP permits utilities more leeway in construction decisions. CWIP without offset encourages utilities to overexpand. Each new construction program increases the rate base and thus increases utility earnings.[129] Because of the promise of immediate returns on CWIP, utilities have an incentive to inflate demand projections[130] and no incentive to pursue conservation programs to reduce capital needs,[131] to repair present plant facilities,[132] to improve technology of

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122. COMPTROLLER GENERAL, U.S. GOV'T ACCOUNTING OFFICE, CONSTRUCTION WORK IN PROGRESS ISSUE NEEDS IMPROVED REGULATORY RESPONSE FOR UTILITIES AND CONSUMERS 54 (1980); CONSUMERS OPPOSED TO INFLATION IN THE NECESSITIES, THERE ARE ALTERNATIVES 35 (1979) (Consumer group is based in Washington, D.C.).

123. COMPTROLLER GENERAL, U.S. GOV'T ACCOUNTING OFFICE, CONSTRUCTION WORK IN PROGRESS ISSUE NEEDS IMPROVED REGULATORY RESPONSE FOR UTILITIES AND CONSUMERS 52 (1980).

124. *See, e.g.*, Georgia Power Co. v. Georgia Pub. Serv. Comm'n, 231 Ga. 339, 343, 201 S.E.2d 423, 426-27 (1973).

125. *See, e.g.*, Kansas-Nebraska Natural Gas Co. v. State Corp. Comm'n, 4 Kan. App. 2d 674, 677, 610 P.2d 121, 124 (1980).

126. *See, e.g.*, Minnesota Power & Light Co. v. Minnesota Pub. Serv. Comm'n, 310 N.W.2d 686 (Minn. 1981); Legislative Util. Consumers' Council v. Public Serv. Co., 119 N.H. 332, 344, 402 A.2d 626, 634 (1979).

127. *See, e.g.*, Legislative Util. Consumers' Council v. Public Serv. Co., 119 N.H. 332, 343, 402 A.2d 626, 633 (1979).

128. *See, e.g.*, New England Tel. & Tel. Co. v. Public Util. Comm'n, 116 R.I. 356, 386-87, 358 A.2d 11, 19 (1976) ("Property under construction is clearly not used in the rendering of regulated services . . . ."). *Accord* Lafourche Tel. Co. v. Lousiana Pub. Serv. Comm'n, 367 So. 2d 1174, 1177 (La. 1979) (CWIP could not be included in the rate base to compensate for attrition or to offset the costs of inflation and court delays); Office of Consumers' Counsel v. Ohio Pub. Util. Comm'n, 58 Ohio St. 2d 449, 391 N.E.2d 311 (1979).

129. *See supra* notes 31-32 and accompanying text.

130. COMPTROLLER GENERAL, U.S. GOV'T ACCOUNTING OFFICE, CONSTRUCTION WORK IN PROGRESS ISSUE NEEDS IMPROVED REGULATORY RESPONSE FOR UTILITIES AND CONSUMERS 52 (1980).

131. UTILITY RATEMAKING, *supra* note 2, at 189, 190; CURRENT ISSUES, *supra* note 101, at 83.

132. The cost of maintenance is an operating expense account. Uniform System of Accounts for Public Utilities and Licensees Subject to the Provisions of the Federal Power Act (Class A and Class B), 18 C.F.R. § 101 (1981); Uniform System of Accounts for Public Utilities and Licensees Subject to the Provisions of the Federal Power Act (Class C and Class D), 18 C.F.R. § 104 (1981); Uniform System of Accounts Prescribed for Natural Gas Companies Subject to the Provisions of the Natural Gas Act (Class A and Class B), 18 C.F.R. § 201

providing services, or to increase the efficient use of present capacity.[133] This tendency is highly inflationary and diverts resources from other sectors of the economy.[134]

CWIP diverts investment from labor-intensive to capital-intensive technology, such as nuclear power with its drawbacks in efficiency, impact on employment, and overall cost.[135] The more expensive the plant, the larger the rate base, and the larger the earnings.[136]

The larger earnings promised by CWIP encourage inefficiency. Since shareholders are allowed a return on investment on any construction work *in progress*, little incentive exists to avoid projects with long lead times or to complete construction quickly.[137]

CWIP also forces customers to bail out management incompetence, whereas customers need not pay AFUDC on funds invested incompetently.[138] For example, in one case a utility cancelled its plan for a nuclear power plant when it discovered that the proposed site was within two thousand feet of an earthquake fault.[139] The utility already had spent over two million dollars on engineering studies and had accumulated approximately three hundred thousand dollars of AFUDC.[140] The court held that the three hundred thousand dollars of AFUDC was not to be amortized, reasoning that the AFUDC represented carrying costs borne by the investor in a project never to be used or useful.[141] If CWIP had been allowed the customers already would have paid those costs relegated to the investor by the court. CWIP thus shifts the risk of investment from shareholders and bondholders to ratepayers.[142]

Utility customers may wonder why they are required to make interest-free advances to utilities for projects so risky that shareholders refuse to assume the risk. Ratepayers also may question whether the rate of return should be lowered drastically when CWIP without offset is included in the

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(1981); Uniform System of Accounts Prescribed for Natural Gas Companies Subject to the Provisions of the Natural Gas Act (Class C and Class D), 18 C.F.R. § 204 (1981); Uniform System of Accounts for Class A and Class B Telephone Companies, 47 C.F.R. § 31.602 (1981); Uniform System of Accounts for Class C Telephone Companies, 47 C.F.R. §§ 33.4010-.4090 (1981).

133. UTILITY RATEMAKING, *supra* note 2, at 190; Just, *Overview of Electric Utility Financial Problems—Long Run Versus Short Run*, in PROCEEDINGS OF WORKSHOP ON ELECTRIC UTILITY FINANCIAL PROBLEMS AND POTENTIAL SOLUTIONS 17 (M. Kahn ed. 1976).

134. CONSUMERS OPPOSED TO INFLATION IN THE NECESSITIES, THERE ARE ALTERNATIVES 35 (1979) (Consumer group based in Washington, D.C.).

135. CURRENT ISSUES, *supra* note 101, at 83.

136. *See supra* notes 31 & 76 and accompanying text.

137. CURRENT ISSUES, *supra* note 101, at 87.

138. COMPTROLLER GENERAL, U.S. GOV'T ACCOUNTING OFFICE, CONSTRUCTION WORK IN PROGRESS ISSUE NEEDS IMPROVED REGULATORY RESPONSE FOR UTILITIES AND CONSUMERS 53 (1980).

139. Central Me. Power Co. v. Public Util. Comm'n, 433 A.2d 331, 344 (Me. 1981).

140. *Id.*

141. *Id.*

142. CURRENT ISSUES, *supra* note 101, at 94; *see, e.g.*, Pennsylvania Pub. Util. Comm'n v. National Fuel Gas Distrib. Corp., 40 Pub. Util. Rep. 4th (PUR) 101, 108-09 (Pa. P.U.C. 1980) (commission excluded cost of exploration program from rate base since it was not used and useful; commission noted that since it permitted the amortization of exploration program costs, the result was a sharing of the risk between ratepayers and shareholders).

rate base. Since the cost of capital supposedly is related directly to risk,[143] CWIP puts investors in a no-risk situation that would justify limiting the return on their capital to a minimum.

C. *Alternatives to Standard CWIP and AFUDC*

Other methods may provide utilities with the necessary cash flow and capital for construction. The investment tax credit[144] and accelerated depreciation,[145] in effect, are federal subsidies of construction. Most regulatory commissions do not allow these tax benefits to flow through; for example, they do not subtract the benefits from estimated taxes when determining rates.[146] Instead, commissions normalize these tax breaks by adjusting the rate base over the life of the asset or by establishing a reserve.[147] Ratepayers rarely see any reduction in rates.[148] New investments and consequent depreciation confer larger tax benefits on utilities each year, thus cancelling any potential for belated rate-base relief. Customers are charged for taxes that utilities never pay.[149] These taxes appropriately have been nicknamed "phantom taxes."[150] Like CWIP, both these provisions encourage capital-intensive resource allocation.

Regulatory agencies can increase the rate of return, which is the weighted average of equity and long-term debt. The effects of and objections to this financial device practically are identical to those of CWIP without offset.[151] Utilities have the same incentive to inflate the rate base on which they will be earning returns at a higher rate. The tax consequences of CWIP also are duplicated. Since a higher rate of return increases taxable earnings, ratepayers must contribute more to achieve the desired effect.

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143. Bronner, *Alternatives to the Discounted Cash Flow Method in Determining the Cost of Common Equity Capital*, 1978 NARUC BIENNIAL REGULATORY INFORMATION CONF. at A-38.

144. I.R.C. § 38 (1976). This section permits a corporation to subtract from its tax liability a specified percentage of investment in certain depreciable property.

145. I.R.C. § 167 (1976 & Supp. IV 1980). Depreciation, an allowance for wear and tear, exhaustion, or obsolescence of property used in business, is deducted under § 167 from gross or taxable income. Accelerated depreciation, which is specifically provided for in this section, is a depreciation method by which a larger deduction for depreciation is taken at the beginning of the property's useful life than toward the later years of its life. Thus, accelerated depreciation gives the taxpayer larger early deductions than the straight-line method, which spreads annual depreciation deductions evenly over the life of the plant. The larger deductions from gross income mean less taxable income, and consequently, a lower tax liability. Companies usually will want to decrease tax liability immediately and pay taxes later—not only will they have the money in hand to invest until the tax becomes due, but the overall tax liability will be smaller because inflation will decrease the value of the dollars with which they pay that tax liability.

146. 2 P. Gerhart, Cases and Materials on Public Utilities Regulation 1 (1982) (unpublished manuscript).

147. *See, e.g., In re* New England Tel. & Tel. Co., 40 Pub. Util. Rep. 4th (PUR) 29, 34 (N.H.P.U.C. 1980) (telephone company required to deduct pre-1971 investment tax credit reserve from its rate base; the portion of the accumulated investment tax credit that had not been restored to income was available for general corporate purposes and represented to the company customer-supplied cost-free capital).

148. CURRENT ISSUES, *supra* note 101, at 109.

149. *Id.*

150. *See* R. MORGAN, PHANTOM TAXES IN YOUR ELECTRIC BILL (1976) (published by the Environmental Action Foundation, Washington, D.C.).

151. CURRENT ISSUES, *supra* note 101, at 95–97.

A second regulatory option is to allow CWIP in the rate base, but to treat it as an enforced advance payment from customers for the purposes of construction and improvement of cash flow. Customers are recognized nominally as lending money to the utility. The money is segregated in an account called Customer Advances for Construction, subject to refund within a reasonable period of time. These funds never are credited to retained earnings, thereby eliminating the income tax two-to-one dollar ratio problem.[152] This method has some of the same questionable characteristics as straight CWIP: for example, the lack of incentive to conserve resources.

Customer Advances for Construction raises two serious questions similar to those raised by Contributions in Aid of Construction, whereby customers pay for the asset, not for the capital cost.[153] For nonrefundable Contributions in Aid of Construction, the question is whether shareholders ever should receive a return on that portion of company property for which customers provided the capital. And for both Contributions in Aid of Construction and Customer Advances for Construction, the question is whether customers should receive a return on their capital over the life of the property in the former case or until the loan is repaid in the latter case. These questions automatically would be answered in the affirmative if shareholders or voluntary investors provided the capital for construction.

D. *The Problematic Nature of Financing Construction for Privately Owned Utilities*

Whatever method is used to finance construction, the ultimate purpose is to increase prices so utilities will have the money to finance construction programs.[154] In this sense, customers are forced investors. Without customer capital contributions utilities claim they are unable to attract new capital or to obtain capital at reasonable rates.[155] Ratepayers provide capital for construction through increased rates of return, taxes, advance payments, direct contributions, CWIP, or AFUDC; yet shareholders earn a return on the completed plant. Since customers are receiving no return on their money, ratepayers in effect are loaning the companies money, interest free! Because Contributions in Aid of Construction and Customer Advances for Construction nominally recognize the role that customers are playing, they are more honest, though not necessarily more desirable, methods of categorizing customer payments than CWIP or increasing the rate of return.

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152. *Id.* at 92. *See supra* text accompanying notes 119–20.

153. Gunter, *Regulatory Treatment of Contributions-In-Aid-Of-Construction: Florida's Experience*, 1980 NARUC BIENNIAL REGULATORY INFORMATION CONF. 402.

154. COMPTROLLER GENERAL, U.S. GOV'T ACCOUNTING OFFICE, CONSTRUCTION WORK IN PROGRESS ISSUE NEEDS IMPROVED REGULATORY RESPONSE FOR UTILITIES AND CONSUMERS at ii (1980); Joskow, *Financing the Future Growth of the Electric Power Industry*, in PROCEEDINGS OF WORKSHOP ON ELECTRIC UTILITY FINANCIAL PROBLEMS AND POTENTIAL SOLUTIONS 75 (M. Kahn ed. 1976).

155. *E.g.*, Monongahela Power Co. v. Public Serv. Comm'n, 276 S.E.2d 179, 180 (W. Va. 1981) (utility claimed new rates made it impossible for the company to secure needed investment capital).

Some studies observe that the cost of capital is the same whether CWIP or AFUDC is used.[156] According to these studies, the question is one of timing: when will the ratepayers bear the cost of capital? However, the additional questions of who should bear the cost of capital, whether capital should earn a return at all, and if so, under what circumstances, need to be addressed.

AFUDC helps to crystallize the issues surrounding the cost of capital. In an attempt to describe and to justify the cost of capital and its treatment as AFUDC, one court stated that "the cost of capital . . . may be said to have two components. The first, an interest component, would be explicit interest on borrowed funds. The second, an equity component, would be the return that is 'foregone' when capital passes into ongoing construction work rather than into alternative investments."[157]

As a policy matter, the interest component apparently could be dealt with as a charge-off to expenses as it became due, rather than as a component of the rate of return or rate base. This method would eliminate the capitalization of interest. Consumers then would pay only the interest itself, the profit on interest allowed by AFUDC having been eliminated. Debt securities, unlike equity, are contractual, and their price is fixed.[158] Regulatory commissions, therefore, would be able to determine total operating expenses with reasonable certainty.

Instead, AFUDC places interest charges in the rate base as part of the asset cost to which it is attributable. Shareholder returns are enlarged unnecessarily because interest payments increase the rate base over the life of the property, even after the interest has been paid. Thus, no incentive exists to shop for willing buyers of debt securities with lower interest rates.[159]

Bonds and other long-term debt instruments have no equity component, the second part of the cost of capital. Yet AFUDC treats debt as if it had an equity component because shareholders earn a return on interest payments. Consumers, by paying the interest through operating expenses, could limit compensation for the use of money to bondholders. Shareholders need not be a party to the arrangement. Shareholders should not anticipate any return on capital they did not provide or on a completed project they did not fund.

Justifications for the AFUDC treatment of interest are subject to serious

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156. *E.g.*, Weaver & Cone, *Regulatory Considerations for Removal of AFUDC*, 1978 NARUC BIENNIAL REGULATORY INFORMATION CONF. at A-63 to A-64.

157. Central Me. Power Co. v. Public Util. Comm'n, 433 A.2d 331, 342 (1982).

158. Fairchild & Avera, *Some Thoughts on the Rate of Return to Public Utility Companies*, 1978 NARUC BIENNIAL REGULATORY INFORMATION CONF. at A-31.

159. There is little incentive for this shopping around even if interest payments are part of operating expenses. Utility commissions rarely scrutinize utility expenses and will accept utility figures if the expenses do not appear absurd. *See, e.g.*, Mountain States Legal Found. v. Utah Pub. Serv. Comm'n, 636 P.2d 1047, 1057 (Utah 1981) ("To a large extent the statutory scheme places responsibility for proposing rates with the utility. Within the limitations imposed by the Public Utility Act and the general policies of the Commission, management decisions are generally accorded some deference, since management is most intimately involved in operating the utility . . . .").

criticism. The traditional rationale behind capitalizing AFUDC is twofold: (1) the accounting definition of an asset is an unexpired cost chargeable to future revenues,[160] and (2) if the return on investment is deferred, the deferred part should earn a return.[161]

Regarding the first rationale, accounting concepts need not be definitive of legal policy. Even in a state that had adopted the Uniform System of Accounts,[162] the accounting profession's choice of accounting method was held not to control the regulatory commission.[163] The court found that the accounting concept of matching costs to the period in which they produced revenues elevated form over substance.[164] The same may be said of the characterization of interest as falling within the definition of asset: as an artificial accounting precept, it may not fit a particular situation or be designed to achieve what a utility commission considers to be an important policy goal.

The second rationale for capitalizing AFUDC—that the deferred return itself should earn a return—seems to have little justification. If long-term debt interest were treated as an operating expense, this rationale would be inapplicable to external funds; creditors would be compensated as interest became due.[165] When the shareholders themselves provide the capital for construction—either from a new issuance of stock or from profits or retained earnings[166]—the capitalization of AFUDC is equally unjustifiable. If capital is viewed as a productive element, like labor, materials, and land,[167] then return on capital or profit may be viewed as the price of capital, just as wages are

160. For example, inventories, prepaid expenses, plant, and deferred charges are assets. These items will be or have been paid; the cost is unexpired to the extent that the item will produce future revenues for the company. In contrast, expired costs will not produce future revenues and are deducted from current revenues or charged against retained earnings. Expired costs include current expenses and the costs of products disposed of or sold. FINANCIAL ACCOUNTING STANDARDS BOARD, FINANCIAL ACCOUNTING STANDARDS 5024 (1981).

161. Weaver & Cone, *Regulatory Considerations for Removal of AFUDC*, 1978 NARUC BIENNIAL REGULATORY INFORMATION CONF. at A-63.

162. 18 C.F.R. §§ 101, 104, 201, 204 (1981); 47 C.F.R. §§ 31.602, 33.4010-.4090 (1981).

163. Legislative Util. Consumers' Council v. Public Serv. Co., 119 N.H. 332, 347, 402 A.2d 626, 636–37 (1979) (commission properly rejected accounting method of matching costs to the revenues that the costs produce).

164. *Id.* at 347, 402 A.2d at 636. The accounting profession capitalizes interest costs for the period required to bring an asset to a condition ready for use or sale. With the exception of routinely manufactured inventories, interest costs attributable to readying the asset for use are included in the cost (basis) of the asset. FINANCIAL ACCOUNTING STANDARDS BOARD, FINANCIAL ACCOUNTING STANDARDS 1197–211 (1981). This Comment argues that capitalizing interest is neither beneficial to ratepayers nor an accurate reflection of the nature of interest costs of utilities. The accounting profession has recognized that its prescribed methods are not always suitable for varying purposes. "Accounting information . . . purports to reflect the activities of a particular enterprise . . . . Information that is representationally faithful in the context for which it was designed, therefore, may not be reliable when used in other contexts." *Id.* at 3059–60.

165. *See supra* text accompanying note 158.

166. The assumption here is that CWIP is excluded from the rate base. Otherwise, the argument that customers are making a capital contribution on which shareholders should earn no return would apply. Depreciation is an expense item, directly recoverable from customers, and thus assumed not to be capital that shareholders provide or on which shareholders should earn a return even if used to cover some construction costs.

167. Fairchild & Avera, *Some Thoughts on the Rate of Return to Public Utility Companies*, 1978 NARUC BIENNIAL REGULATORY INFORMATION CONF. at A-31.

viewed as the price of labor. AFUDC suggests that profit itself should earn a profit because the first profit was not taken immediately. This process is like a demand, under threat of an ongoing surcharge, for payment prior to delivery of materials, or in some cases, even before any guarantee of delivery is made. (Power plant construction frequently is cancelled.[168]) Furthermore, because AFUDC exists for the life of the plant, shareholders earn a return on their profit for a period exceeding the construction period during which earnings were deferred. They in effect are being paid for work never performed.

The main conceptual problem with placing capital costs in the rate base is that such placement allows utility investors to do something of questionable validity even under capitalism: collect double, or excess, profit. Whether analyzed under a theory of abstinence or risk bearing[169] or under a theory of surplus value,[170] this excess profit is troublesome.

Under the theory of abstinence investors are assumed to be aware when committing funds to a particular venture that other investments and returns are being foregone. Further, they are aware that returns may not be immediate, but, for various reasons, are willing to wait to realize a profit. If the method of treating construction costs is public knowledge, investors should be satisfied with the return allowed if they choose to invest. They may calculate foregone gains in determining what rate of profit they will accept, but they should not expect to collect that profit twice on a single investment. This double collection of profit is the result when utility shareholders receive profits not only on the rate base or product of investment, but also on the deferred profits.

Under risk-bearing theory profit is viewed as a reward for the shareholder's risk bearing. Utility shareholders should be willing to defer this reward since so few risks exist in a public utility.[171] Short of an obviously absurd investment,[172] the Supreme Court has mandated that utility shareholders be

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168. Platt, *Some Implications of Cancelled Construction Plans*, PUB. UTIL. FORT., Aug. 19, 1982, at 26; N.Y. Times, Feb. 10, 1982, § IV, at 13 col. 1 (in the last 6 years, 91 nuclear and coal-fired plants were cancelled); *see, e.g., Ex rel* Gulf States Util. Co., 40 Pub. Util. Rep. 4th (PUR) 593 (La. P.U.C. 1980); Central Me. Power Co. v. Public Util. Comm'n, 433 A.2d 331 (Me. 1981); Fendell, *Rate Hike*, Aquarian, June 1979, at 6, col. 1 (Public Service Electric & Gas Company's cancellation of plans for floating nuclear power plants off the New Jersey coast).

169. Abstinence theory defines profit as the reward for postponing present enjoyment of wealth so that it may be devoted to production. J. MOORE, W. STEINER, H. ARKIN & R. COLTON, MODERN ECONOMICS: ITS PRINCIPLES AND PRACTICES 355 (1940). Under risk-bearing theory profit is the reward for risking one's investment when conditions of uncertainty exist. When the risk is greater, borrowers must pay a premium for risk-taking large enough to cover possible losses. *Id.*; 2 W. KING, THE ECONOMIC FOUNDATION OF BUSINESS 130–31 (W. Spahr ed. 1932); F. GARVER & A. HANSEN, PRINCIPLES OF ECONOMICS 502–05 (1928).

170. Surplus-value theory defines profit as the difference between the wages paid to workers and the value of the commodity produced by those workers. The value of the commodity is the amount of socially necessary labor embodied in it. 2 P. GEMMILL & R. BLODGETT, ECONOMICS: PRINCIPLES AND PROBLEMS 431 (1944).

171. Boulding, *Social Risk, Political Uncertainty, and the Legitimacy of Private Profit*, in RISK AND REGULATED FIRMS 89–90 (R. Howard ed. 1973).

172. *See, e.g.*, Mountain States Legal Found. v. Utah Pub. Serv. Comm'n, 636 P.2d 1047, 1057 (Utah 1981); *see also In re* Boston Edison Co., 40 Pub. Util. Rep. 4th (PUR) 67, 89–91, 93 (Mass. P.U.C. 1980) (attorney general objected to rate increase because of utility mismanagement and operating inefficiency; commission, questioning the expert nature and impartiality of attorney general's witness and noting the efficien-

provided a fair rate of return on investment.[173] The first profit may be viewed as a risk-bearing reward; the second "profit" may be viewed as rent—always the least defensible form of nonlabor income.[174]

This double dipping by shareholders also may be analyzed under a theory of surplus value. The shareholder, as owner and employer of capital, is asking not only that he or she retain all the profit or surplus value produced by employing the capital in the reproduction process.[175] The shareholder is attempting to sell that same capital again to himself or herself, without alienating it and without reemploying it in the reproduction process, so it can produce a second surplus value or profit. Money can only produce more money if it performs a productive function.[176] Whether characterized as rent, an unearned reward for risk bearing, or simply a greedy request for two profits when a single investment realistically can produce only one, the capitalization of AFUDC places unjustifiable financial burdens on ratepayers.

The unsatisfactory nature of AFUDC is mirrored in all the methods of financing construction for privately owned utilities; investors benefit at the consumers' expense. This Comment has suggested that both CWIP without offset and AFUDC are unsatisfactory for funding construction programs. An increase in the rate of return is particularly hard to justify given the increases in dividend payments and residential bills mentioned earlier in this Comment.[177] Contributions in Aid of Construction and Customer Advances for Construction are equitable only if stockholders are not permitted to participate in the fruits of ratepayer investment and if some provision is made to allow ratepayers a return on their capital. Government subsidies through tax breaks can be criticized as self-defeating in unemployment policy and as

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cy improvement of the company, granted the rate increase citing inflation, regulatory lag, and lack of investor confidence in utility); Wall St. J., Feb. 29, 1982, § 1, at 2, col. 5 (Michigan Supreme Court holds financing programs may not be reviewed by considering whether new generating capacity is needed).

173. "What the company is entitled to ask is a fair return upon the value of that which it employs for the public convenience." Smyth v. Ames, 169 U.S. 466, 547 (1898).

174. Boulding, *Social Risk, Political Uncertainty, and the Legitimacy of Private Profit*, in RISK AND REGULATED FIRMS 85 (R. Howard ed. 1973). "[I]nterest to-day rewards no genuine sacrifice, any more than does the rent of land . . . ." J.M. KEYNES, GENERAL THEORY OF EMPLOYMENT, INTEREST AND MONEY 376 (1964). It might be noted here that classical economists tended to say the same thing about profit. R. MEEK, STUDIES IN THE LABOR THEORY OF VALUE 127 (2d ed. 1956).

175. The reproduction process is from Money (capital) to Commodities (*e.g.*, electricity or telephone services) to Money Expanded by Surplus Value (profit) (M—C—M'). For money to earn profit, commodities must be produced; thus, money must serve a productive function before profit can be realized. K. UNO, PRINCIPLES OF POLITICAL ECONOMY 50–70 (1964).

176. Karl Marx describes interest as that portion of the use-value of money as capital (the ability to produce surplus value) that falls to the lender. He notes that both lender and borrower expend the same sum of money as capital. Since profit is not doubled by the existence of the same sum of money as capital for two persons, the profit must be divided between the borrower and seller. Even when a shareholder functions as both owner and employer of capital, and the capital yields the two parts of profit, only one profit still exists to be claimed. 3 K. MARX, CAPITAL 353 (1967 ed.).

When AFUDC is capitalized, shareholders are attempting to obtain double profit—the first is provided in the rate of return on the commodity produced, which accounts for the use-value of capital within the productive process (shareholder as employer) and the use-value of money outside that process (shareholder as owner). The second profit is an attempt to collect again the use-value of money outside the productive process.

177. *See supra* notes 33–47 and accompanying text.

nonbeneficial to consumers who never see any reduction in their rates.[178] Tax breaks may be criticized further as assistance to an industry that is not performing poorly.[179]

IV. State Response to Utility Construction Financing

Statistics indicate that federal and state governments tend to reject consumer criticism of current utility financing practices. Instead, the trend is toward more extensive use of CWIP and AFUDC. Until 1976 the Federal Power Commission[180] and many states disallowed the inclusion of CWIP in the rate base.[181] In 1974 twenty-eight states permitted the inclusion of CWIP in the rate base;[182] thirty-seven states did so in 1979.[183] The amount of CWIP allowed in the rate base of privately owned electric utilities skyrocketed by 345 percent from 1971 to 1980.[184] In 1979 forty-two states permitted AFUDC to be capitalized;[185] twenty-three states did so in 1974.[186] From 1971 to 1980 AFUDC as a percentage of privately owned electric utility net income increased from 28.5 percent to 41.2 percent.[187] Although more consumer moneys are being used to finance construction, the capitalization of utilities has been relatively static. Between 1971 and 1980 the capitalization of investor owned electric utilities remained fairly stable, with long-term debt decreasing slightly from 54.2 percent to 50.2 percent and equity (preferred and common stock and retained earnings) increasing slightly from 45.8 percent to 49.8 percent.[188]

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178. *See supra* notes 148–50 and accompanying text.

179. *See supra* notes 37–47 and accompanying text. "Electric utility stocks have become one of this year's (1981) star performers . . . ." Handel, *CWIP, Meat-Ax Regulation*, PUB. POWER, March-April 1982, at 26, 28 (quoting Nov. 12, 1981, Wall St. J.). "Overall, electric stocks for the past year have substantially outperformed the market and fixed income securities . . . ." *Id.* (quoting Smith Barney Harris Upham utility analysts).

180. The Federal Power Commission was the precursor of the Federal Energy Regulatory Commission.

181. Jones, *A Defense of Rate Regulation in the Classic Style*, PUB. UTIL. FORT., June 19, 1980, at 76, 76.

182. *Characteristics of the Public Utility Regulatory Agencies in the United States*, 28 BAYLOR L. REV. 1157, 1164–65 (1976).

183. Chart of the National Association of Regulatory Utility Commissioners, at 416 (1979) (The Association is based in Washington, D.C.) (variations in specific items, utility, circumstances, and time-frame requirements for inclusion of CWIP; three states required an offset to income).

184. ENERGY INFORMATION ADMIN., U.S. DEP'T OF ENERGY, STATISTICS OF PRIVATELY OWNED ELECTRIC UTILITIES IN THE UNITED STATES 1980—CLASSES A AND B COMPANIES 28 (1981) [hereinafter cited as PRIVATELY OWNED ELECTRIC UTILITIES]. In 1971 construction work in progress accounted for about 15% of electric net utility plant (all utility plant adjusted for depreciation, depletion, and amortization). By 1980 construction work in progress had increased to about 27% of electric net utility plant. *Id.*

185. Chart of the National Association of Regulatory Utility Commissioners, at 416 (1979) (The Association is based in Washington, D.C.).

186. *Characteristics of the Public Utility Regulatory Agencies in the United States*, 28 BAYLOR L. REV. 1157, 1164–65 (1976).

187. PRIVATELY OWNED ELECTRIC UTILITIES, *supra* note 184, at 8. AFUDC as a percent of net income of privately owned utilities increased from 28.9% to 31.5% between 1974 and 1978. *Id.* Municipal utilities decreased AFUDC as a percent of net income from 15.4% to 14.4% during that same period. ENERGY INFORMATION ADMIN., U.S. DEP'T OF ENERGY, STATISTICS OF PRIVATELY OWNED ELECTRIC UTILITIES IN THE UNITED STATES—1978, at 18 (1979).

188. The relative weights of preferred stock, common stock, and retained earnings also have shown little variation. PRIVATELY OWNED ELECTRIC UTILITIES, *supra* note 184, at 30. In other words, although more consumer money is being used to finance construction, the industry's incentive to increase the rate base through extensive construction programs has precluded the lowering of the debt component of capitalization.

Whether CWIP or AFUDC is included in the rate base is determined by a mixture of statute,[189] regulation,[190] and court decisions,[191] depending upon the state. The above statistics indicate the regulatory and legislative response to CWIP, AFUDC, and the role of stockholders vis-à-vis consumers in making capital available to utilities. Since most states have adopted some form of an administrative procedure act,[192] courts are limited in their powers of review. Courts can determine whether a regulatory order or a statute falls outside the power of the body promulgating it and whether a constitutional standard, such as that set out in *Bluefield Water Works & Improvement Co. v. Public Service Commission*,[193] has been violated.[194]

Within this framework the courts have taken two basic approaches to utility capital provision. The first is characterized by deferral to commission judgment, with the proviso that the decision must meet federal constitutional standards as set out in *Bluefield*. The second approach employs limited scrutiny of commission decisions, using some form of the used and useful standard[195] to determine whether the order falls outside the agency's powers, while retaining a deferential stance toward the commission and exhibiting concern about the requirements of *Bluefield*.

A recent example of the first approach is *Monongahela Power Co. v. Public Service Commission*,[196] which outlined the steps in reviewing commission orders. The court initially should determine whether the commission has abused its authority. The court then should ascertain whether evidence exists to support the regulatory method chosen by the commission. Finally, the court must decide whether the rates set are sufficient to maintain the company's financial integrity, to attract capital, and to compensate investors while protecting the public. The commission must balance these divergent interests.[197]

The District of Columbia Court of Appeals adopted a comparable approach in *Potomac Electric Power Co. v. Public Service Commission*.[198] The utility disputed the amount of CWIP allowed in the rate base. The commission had disallowed a portion of the utility's request. Because of an anticipated reduction in the utility's construction program, the commission found the

189. *See, e.g.*, N.C. GEN. STAT. § 62-133(b)(1) (Supp. 1982); OHIO REV. CODE ANN. §§ 4909.15(A)(1), (E) (Page Supp. 1981).

190. Most states permit only limited review of regulatory orders. *See, e.g.*, CAL. PUB. UTIL. CODE § 1757 (West 1975) (review limited to constitutional questions; commission fact findings are final); UTAH CODE ANN. § 54-7-16 (1963) (review limited to constitutional questions and whether commission has "regularly" pursued its authority).

191. *See, e.g.*, Kansas-Nebraska Natural Gas Co. v. State Corp. Comm'n, 4 Kan. App. 2d 674, 610 P.2d 121 (1980).

192. *See supra* note 190.

193. 262 U.S. 679 (1923). *See supra* text accompanying notes 10–14.

194. *See supra* note 190.

195. UTILITY RATEMAKING, *supra* note 2, at 84.

196. 276 S.E.2d 179 (W. Va. 1981).

197. *Id.* at 180.

198. 402 A.2d 14 (D.C.), *cert. denied*, 444 U.S. 926 (1979).

utility's suggestion for CWIP unrepresentative of the future period when the new rates would be in effect.[199] In affirming the commission order, the court noted that D.C. Code section 43–706[200] limited an appeal of a commission order to questions of law, including constitutional questions. Commission fact findings were conclusive unless "unreasonable, arbitrary, or capricious."[201] The court's test of reasonableness, derived from the fifth and fourteenth amendments, was whether the company was permitted to earn a fair rate of return on its investment.[202] The court would intervene only upon a "clear showing" of a due process violation.[203] If the result of a commission's order was not arbitrary, the court would make no inquiry into its validity.[204]

Legislative Utility Consumers' Council v. Public Service Co.[205] held that in reviewing a commission order the court considered commission determinations of questions of fact as prima facie lawful and reasonable. The court would reverse an order only if it were unlawful, unjust, unreasonable, or an abuse of the commission's discretion.[206] The court then considered, in more detail than its own definition of the scope of review would allow, the Consumers' Council challenges to the inclusion of CWIP.[207] The court, however, held that since AFUDC is not mandated by law, its use was a factual determination for the commission.[208]

The courts in this line of cases have abdicated their power of statutory interpretation to the utility commissions. *Legislative Utility Consumers' Council* holds that the commission decides what is used and useful.[209] Unless the commission orders plainly are contrary to statute, irrational, or in violation of the fifth and fourteenth amendments' prohibitions of confiscation of property without due process, the courts refuse to intervene. Within these limits, policy considerations and the balancing of investor and consumer interests are left to the regulatory bodies and to the legislature. Since the *Federal Power Commission v. Hope Natural Gas Co.*[210] interpretation of the

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199. *Id.* at 24–25.

200. D.C. CODE ANN. § 43–706 (1973).

201. 402 A.2d 14, 17 (D.C. 1979).

202. Potomac Elec. Power Co. v. Public Serv. Comm'n, 380 A.2d 126, 131 (D.C. 1978), *rev'd on rehearing*, 402 A.2d 14 (D.C.), *cert. denied*, 444 U.S. 926 (1979).

203. *Id.*

204. *Id.* at 132.

205. 119 N.H. 332, 402 A.2d 626 (1979).

206. *Id.* at 340, 402 A.2d at 631.

207. In *Legislative Utility Consumers' Council* consumers had challenged the inclusion in the rate base of CWIP for the Seabrook nuclear power plant. The court rejected their challenge, noting that the Consumers' Council had not contended that the Seabrook expenditures were wasteful. The court claimed that the public had an interest in attracting capital to meet increased demand. Additional reasons for including CWIP were that CWIP did not represent a capital contribution, rather consumers paid the financing costs of construction earlier, and most consumers remain as ratepayers to realize the eventual cost savings of CWIP over AFUDC. The court analogized the situation of ratepayers who did not realize the lower cost to that of taxpayers who pay for schools they do not use. (The court failed to recognize that tax moneys go to public use, whereas the return on CWIP goes to private pockets.) The court also found that the utility offered sufficient evidence of financial need to justify the use of this ratemaking device. *Id.* at 344, 348–50, 402 A.2d at 634, 637–38.

208. *Id.* at 345, 402 A.2d at 635.

209. *Id.* at 343, 402 A.2d at 633.

210. 320 U.S. 591 (1944). *See supra* text accompanying notes 10–12.

fifth and fourteenth amendments' prohibition of property confiscation without due process is based on the protection of investor interests, the courts limit regulatory and legislative action only to the extent such action impinges upon the property interests of investors.

In the second approach to capital provision courts engage in some very circumscribed statutory interpretation. Usually this interpretation takes the form of explanation rather than modification of commission orders. As previously noted, most states provide that a utility shall earn a return on property that is "used and useful" or "used or required to be used" in the public service.[211] Historically, this test precluded the inclusion of CWIP in the rate base.[212] Interpreting used and useful in the public service requires the court to examine whether a particular utility investment serves the public and to determine what constitutes serving the public.

In *Kansas-Nebraska Natural Gas Co. v. State Corp. Commission*[213] a utility claimed that the exclusion from its rate base of forty-eight gas wells, completed but not connected to a gathering system, constituted a due process violation.[214] The company argued that the rates approved by the commission would not provide a reasonable return or just compensation for the value of its property.[215] The Kansas court deferred to commission decisions about the facts and the weight given them.[216] The determination whether property was "used or required to be used in the utility's services to the public"[217] was left to commission discretion unless it acted "unlawfully or arbitrarily without supporting evidence."[218] The court then explained its test for used or required to be used, noting that because something may be useful does not necessarily mean it is required to be used.[219] This two-prong test could have been met by the company had it shown the gas wells either were "used" or "required to be used."[220] In affirming the commission's order, the court simply found that Kansas-Nebraska had not shown that the gas wells were required.[221]

The court in *Providence Gas Co. v. Burman*[222] concluded that 160,000 dollars of CWIP was properly excluded because it did not represent used and useful property presently being devoted to providing the regulated service.[223] The court relied on the precedent set by *New England Telephone & Tele-*

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211. UTILITY RATEMAKING, *supra* note 2, at 52.
212. Jones, *A Defense of Rate Regulation in the Classic Style*, PUB. UTIL. FORT., June 19, 1980, at 76, 76.
213. 4 Kan. App. 2d 674, 610 P.2d 121 (1980).
214. *Id.* at 675, 610 P.2d at 124.
215. *Id.* at 675, 610 P.2d at 125.
216. *Id.*
217. *Id.* at 677, 610 P.2d at 126.
218. *Id.* at 675, 610 P.2d at 125.
219. *Id.* at 678, 610 P.2d at 126.
220. *Id.*
221. *Id.* at 679, 610 P.2d at 127.

Like *Kansas-Nebraska*, the court in *West Penn. Power Co. v. Pennsylvania Pub. Util. Comm'n* affirmed the commission's order to exclude CWIP by comparing its concept of used and useful with the factual situation at hand. 50 Pa. Commonw. 164, 412 A.2d 903 (1980).

222. 376 A.2d 687 (R.I. 1977).
223. *Id.* at 692–93.

graph Co. v. Public Utilities Commission.[224] In that case the utility requested the inclusion in its rate base of more than six million dollars of plant under construction. The utility argued that the inclusion of CWIP was necessary to achieve its return on equity.[225] The Rhode Island Supreme Court rejected the notion of injustice to investors, since interest charges of construction were capitalized under AFUDC.[226] The court described the dispute as hinging on a choice between accounting methods. The court held that it would not interfere with the commission's methodology if the end result was "fair and reasonable."[227] The court's position was supported by a citation to *Federal Power Commission v. Hope Natural Gas Co.*[228] By excluding CWIP based on the used and useful criterion and on deference to commission accounting preferences, the Rhode Island Supreme Court made the investor-oriented test of *Hope* the ultimate test of commission orders. The court thus indicated that both deference to the commission and the concept of used and useful would fall by the wayside if a utility's rates were not fair to investors.

Although all these courts presented at some length the reasons for their decisions, they all were extremely deferential to commission determinations of used and useful, affirming the regulatory body's decision in each of the cases cited. While constrained by an administrative standard of review, courts have the option of using statutory interpretation to reach more consumer-oriented results. For example, if used and useful are defined narrowly, the inclusion of CWIP in the rate base would be an order beyond the authority of a commission that was mandated to include only used and useful items in the rate base. The option of statutory interpretation itself is constrained by the Supreme Court's interpretation of the fifth and fourteenth amendments. Since the Supreme Court, through *Hope* and *Bluefield*, virtually has made return on investment a constitutional right, courts may not, by issuing opinions or by deferring to agency decisions, interfere with that right.

In *Georgia Power Co. v. Georgia Public Service Commission,*[229] though affirming the commission's decision to exclude CWIP as not used and useful, the court grumbled that the agency's order was "barely above the point of confiscation."[230] Although CWIP was excluded, the court was careful to protect profits. The court warned the commission that rates must produce enough revenue for the operating expenses and the capital cost of business, which includes sufficient interest and dividends to attract capital.[231]

Perhaps this type of warning has contributed to what one utility specialist views as the trend of commissions to give more attention to the rate of return

224. 116 R.I. 356, 387, 358 A.2d 1, 19 (1976).
225. *Id.*
226. *Id.*
227. *Id.*
228. 320 U.S. 591 (1944).
229. 231 Ga. 339, 201 S.E.2d 423 (1973).
230. *Id.* at 344, 201 S.E.2d at 427.
231. *Id.* at 344, 201 S.E.2d at 427–28.

on equity than to the rate base calculations.[232] This switch has minor long-term implications for utility rates. Statutes or rulings severely limiting CWIP, AFUDC, or any other method of providing capital to investor owned utilities are in one sense irrelevant to the consumer: experience shows that when the rate base is decreased, the rate of return generally is increased to reach the same revenue result as if the rate base had been left undiminished.[233] While theorizing about whether to use CWIP, AFUDC, original cost, or fair market valuation may be intellectually stimulating, that process bears little relationship to Jane and John Doe's utility bills.[234] Whether regulation of the rates of privately owned utilities is accomplished by court decision, statute, or administrative rule, the tests of whether rates are just and reasonable are the investor-oriented tests of *Hope*[235] and *Bluefield*.[236]

V. THE INADEQUACY OF CURRENT LEGAL RESPONSE

Revenue regulation is profit regulation, achieved through adjustments to the rate of return, the rate base, or both. Revenues are established to provide for operating expenses, interest charges, and a fair (nonmonopoly[237]) profit. Privately owned utilities, of course, view profit growth as their top priority.

> It is understood that private businessmen, like most other human beings, are concerned with their own self interest. Indeed, economic theory not merely assumes but positively expects them to engage in systematic profit maximization. This means, in turn, that unless prevented from doing so by some force external to themselves, entrepreneurs will overcharge and underproduce, thus enriching themselves at the expense of society at large.[238]

The dangers of unrestrained self-interest by monopoly capitalists were discussed throughout the body of this Comment. That the profit motive remains unrestrained in the utility industry was demonstrated by statistics on the dangers that have become realities—for example, utility bill increases and excess capacity.[239]

One reason for the failure of regulation is that privately owned utilities virtually are guaranteed profits by the present reading of the Constitution. To withstand a constitutional challenge, the states must set rates that provide a fair profit to privately owned utilities. The Supreme Court has determined

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232. Jones, *A Defense of Rate Regulation in the Classic Style*, PUB. UTIL., FORT., June 19, 1980, at 76, 76.

233. Butler, *The Rate of Return in Texas—The Neglected Issue*, 28 BAYLOR L. REV. 945 (1976).

234. CONGRESSIONAL RESEARCH SERV. FOR THE HOUSE COMM. ON INTERSTATE & FOREIGN COMMERCE, 95TH CONG., 1ST. SESS., THE ELECTRIC UTILITY SECTOR: CONCEPTS, PRACTICES, AND PROBLEMS 15–16 (1977).

235. Federal Power Comm'n v. Hope Natural Gas Co., 320 U.S. 591 (1944).

236. Bluefield Water Works & Improvement Co. v. Public Serv. Comm'n, 262 U.S. 679 (1923).

237. *See supra* notes 8 & 77 and accompanying text.

238. Munkirs, Ayers & Grandys, *Rape of the Rate Payer: Monopoly Overcharges in the "Regulated" Electric Utility Industry*, 8 ANTITRUST L. & ECON. REV. 57, 66 (1976).

239. *See supra* text accompanying notes 33–35 & 65–69. Additional evidence of the failure of regulation is its inability to prevent monopoly overcharges of some 26% of operating income of 40 investor owned electric utilities in 1972. Munkirs, Ayers & Grandys, *Rape of the Rate Payer: Monopoly Overcharges in the "Regulated" Electric Utility Industry*, 8 ANTITRUST L. & ECON. REV. 57, 58 (1976).

that a fair profit is a return on investment that is fair to investors.[240] The question is not whether consumers can afford a basic necessity, or whether customers of privately owned utilities are getting the service they want and for which they pay, but whether owners of capital find a particular utility's rate of return attractive enough to invest in it.

The courts, while able conceivably to bring small victories to consumers through more active and less deferential statutory interpretation, ultimately are laboring under a standard of review[241] that places the big guns in the hands of the shareholders. One judge expressed it plainly: "[T]he one critical result which courts can understand and the only thing they need address is the constitutionality of the utility's rate of return on its invested capital. Courts are indispensable to the health of regulated industries . . . ."[242]

Regulatory commissions must work within the same constraints; shareholder interests must take priority over consumer interests. An example is a Depression-era decision of the Ohio regulatory commission.[243] Consumers had complained to the commission that while the prices of other commodities had dropped, utility prices had not.[244] The commission somewhat apologetically explained that utility rates could not be calculated upon the ability of the consumer to pay. Rather, the law mandated that rates be determined to give a just return for property used and useful in supplying services.[245] This rationale is as little comfort to consumers today as it was in 1933. For again, consumers plausibly may win a few more battles[246] and still lose the war.

Consumer representation at rate hearings is vastly overrated as a means to control utility rate hikes. One need only look at the statistics on utility bill increases to come to this conclusion. Consumers do not have the financial or legal resources to battle well-equipped armies of utility lawyers. Responding to the question why consumers pay so much when utility profits are so high, New York State Consumer Protection Board executive director Karen Burstein replied that utilities have "giant resources, gather masses of information that they feed to utility boards, which rely on such information to make rate decisions . . . . The information is available to advo-

240. Federal Power Comm'n v. Hope Natural Gas Co., 320 U.S. 591 (1944); Bluefield Water Works & Improvement Co. v. Public Serv. Comm'n, 262 U.S. 679 (1923).

241. *See supra* text accompanying notes 13–14.

242. Monongahela Power Co. v. Public Serv. Comm'n, 276 S.E.2d 179, 189 (W. Va. 1981) (Neely, C.J., concurring).

243. *In re* West Jefferson Power & Light Co., 1933D Pub. Util. Rep. (PUR) 163 (Ohio P.U.C. 1933).

244. *Id.* at 164.

245. *Id.*

246. Reform is particularly feasible for courts' or regulatory agencies' treatment of operating expenses, such as advertising and charitable contributions, and the accounting treatment of tax credits. However, while these items may mean millions of dollars for a particular utility, they are petty cash compared to rate base and rate of return. Regarding rate base, commissions might exercise more caution in authorizing an investment. But not all investments require preauthorization. And once authorized, almost daily supervision by regulators would be required to counteract shareholder incentive to expand and lengthen any capital-intensive project, since shareholders would rationalize most management decisions as reasonable exercises of judgement.

cates, . . . but is couched in obfuscating language that only the utilities understand."[247]

State-sponsored agencies that represent consumers in hearings often suffer from the same lack of resources and from institutional barriers to effective representation of their clients. These barriers include lack of communication with consumers and political pressures from within state government. Governors who appoint the heads of consumer-counsel offices and later run for office probably consider utility campaign contributions helpful. A further example of institutional barriers is the funding of the Division of Rate Counsel of the New Jersey Department of the Public Advocate. Its funding for opposing utility requests is a percentage of the amount each company finally is granted.[248] This funding arrangement may serve as a disincentive to vigorous opposition to rate hikes.

Better equipped consumers and more independent and financially secure agencies are bandaid solutions. No matter how committed and articulate the consumer advocates, consumers, or agencies, they still are at the mercy of regulatory commissions and courts that are constrained by the investor-oriented tests of *Hope* and *Bluefield.*

Legislation is the most potent medicine for profit fever. If the legislature acts to regulate privately owned utilities more efficiently by removing items from the rate base or by altering the method of determining the rate of return, the legislature will have used surgery, politically painful and costly, to treat the symptoms without removing the cancer—the profit orientation of utilities.[249] Furthermore, that surgery will be reversible by the courts under the *Hope* and *Bluefield* tests:

> The most serious and pervasive limitation on the exercise of the state's powers of control over public utilities is to be found in the Supreme Court's interpretation of the Fourteenth Amendment . . . . [T]his interpretation of the Fourteenth Amendment has seriously interfered with the freedom of the legislature in the choice of the appropriate instrumentalities and procedures for regulation, and has conferred on the judiciary veto power in virtually all matters pertaining to the control of the rates and charges of regulated enterprises.[250]

Instead of viewing the patient as a privately owned utility, the patient should be seen as an enterprise providing a basic necessity to the public. The question then can be expanded from, "How do we balance the public interest with the interest of shareholders in a return on their investment?" to, "How do we provide utility services to consumers as efficiently and at as low a price as

247. N.Y. Times, April 18, 1982, § XI, at 15, col. 1.

248. *Id.*

249. The first part of this Comment showed that profit orientation is conducive to overexpansion, costly technological choices, and other utility ills. *See supra* text accompanying notes 33–85.

250. I.R. BARNES, THE ECONOMICS OF PUBLIC UTILITY REGULATION 287 (1947).

possible without adverse public impact?"[251] This latter query allows us to question not only the monopoly position of utilities but also the private ownership of a basic necessity.

VI. Addressing the Issue of Utility Industry Structure

A. *Competition—An Ill-Fated Choice*

Some writers urge the restoration of competition to the utility industry.[252] They believe competition will limit abusive utility practices.[253] Competition, however, does not restrain the profit motive, which causes price increases, so much as it allows consumers to choose their sellers to avoid the more blatant expressions of that motive, such as outrageous prices. Since utilities are natural monopolies, demand is not sufficiently elastic[254] to allow for effective bargain hunting.

Furthermore, competition would lead to exceedingly inefficient use of scarce resources.[255] Even when competition and multiple suppliers might be efficient—possibly for solar energy or telephone communications[256]—the vision of capitalists is not so clouded by the profit motive that they cannot see that self-interest sometimes is achieved best by cooperation with other capitalists with the same self-interest. Although antitrust litigation may control some profit-seeking cabals, its ineffectiveness is illustrated by the recent A.T.&T. antitrust settlement.[257] It seems more rational to forego competition with its foreseeable pitfalls and instead to look at other possibilities.

B. *Public Ownership—A Proven Alternative*

Public ownership of utilities often is overlooked as a solution to utility dilemmas. This omission is due to the political and economic myths that accompany the very utterance of the words "public ownership."[258] For this

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251. Adverse public impact might take the form of pollution, health and safety problems, environmental destruction, or negative effects on other sectors of the economy.

252. *See, e.g.*, Munkirs, Ayers & Grandys, *Rape of the Rate Payer: Monopoly Overcharges in the "Regulated" Electric Utility Industry*, 8 ANTITRUST L. & ECON. REV. 57 (1976).

253. *Id.*

254. A person is far less likely to forego heating his or her home until heat is offered at a sufficiently low price than he or she is to delay buying a record album or a new suit. Furthermore, it is not feasible to adapt all homes to alternate energy sources, unlike the way one suit usually can be substituted easily for another.

255. *See supra* note 6 and accompanying text.

256. M. CARNOY & D. SHEARER, ECONOMIC DEMOCRACY 196–97, 205–10 (1980).

257. N.Y. Times, June 30, 1982, § IV, at 12, col. 5 (National Association of Regulatory Utility Commissioners says proposed breakup of A.T.&T. will lead to higher telephone rates); *Future of Bell System Debt*, N.Y. Times, Jan. 12, 1982, at D1, col. 3 (local rate increases probable because of lower credit ratings expected as a result of a lack of A.T.&T. umbrella); *U.S. Settles Phone Suit, Drops I.B.M. Case; A.T.&T. to Split Up, Transforming Industry*, N.Y. Times, Jan. 9, 1982, at 1, col. 4 (A.T.&T. president estimates local rates will double in next few years).

258. *See, e.g.*, Ritchie, *The Power Question—Let Us Not Go Revolutionary*, in SHOULD THE GOVERNMENT OWN AND OPERATE ELECTRIC UTILITIES 297–311 (E. Buehler ed. 1936) (address given by the Governor of Maryland before the Section of Public Utility Law of the American Bar Association, 1931). The utility industry launched a campaign in 1949 against government ownership under the slogan, "Government in Any Business is Socialism." Love, *Reddy Kilowatt's Dark Hour*, PROGRESSIVE, Dec. 1974, at 47.

reason, understanding the differences between *laissez-faire* capitalism and monopoly capitalism, and between state capitalism and socialism, is fundamental to framing discussion of public utility issues.

1. *Relationship of Public Ownership of Utilities to Economic Systems*

Capitalism is an economic system in which all or most of the means of production are privately owned and operated for profit.[259] *Laissez-faire* capitalism operates without governmental regulation or control;[260] the owners of business and industry set the ground rules for labor, product quality, competition, and prices.

> Those systems that continue to fly the laissez-faire banner today . . . accept, with varying degrees of steadfastness, a commitment to use fiscal and monetary policies in pursuit of high employment and output levels.
>
> More traditional concepts of laissez faire do not permit even this, and in the libertarian version the government's role is limited to "preventing" one man from injuring another.[261]

The motto of *laissez-faire* proponents is, "To govern better . . . one must govern less."[262] A regulated utility is anathema to a *laissez-faire* believer because, short of government ownership, it is hard to conceptualize more government involvement with business.[263]

"Monopoly capitalism" describes what most economists recognize: the classical model of a freely competitive and self-adjusting economy no longer reflects present capitalist reality.[264] In the classical model, prices are determined by the bids of many buyers and sellers, each too small to affect the outcome by his or her own action.[265] Just as society's notions of morality change, so economic systems change with the times.

> In modern society, with its elaborate and costly technique and productive processes conducted with intricate specialisation [*sic*] and mechanisation [*sic*], it is impossible for every man to run his own productive process. To start production needs capital in very large amounts—amounts quite out of reach of anyone who has not accumulated quite a pile (or at least is in a position, socially or economically, to draw other capitalists into partnership with him—as everyone knows, nobody lends to a man who has nothing at all).
>
> What this amounts to is that in modern society a system of individual ownership of means of production must mean at the same time a *concentration* of such ownership into relatively few hands. This very fact of concentration implies its opposite, *the lack* of ownership on the part of others—in fact, of the majority of the population.[266]

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259. WEBSTER'S NEW TWENTIETH CENTURY DICTIONARY 269 (unabr. 2d ed. 1970).
260. *Id.* at 1015.
261. R. CARSON, COMPARATIVE ECONOMIC SYSTEMS 451–52 (1973).
262. J.M. KEYNES, LAISSEZ-FAIRE AND COMMUNISM 25 (1926).
263. Some might argue that utilities are regulated in form but not in substance.
264. P. SWEEZY, *Theories of the New Capitalism*, in MODERN CAPITALISM AND OTHER ESSAYS 66 (1972).
265. *Id.*
266. M. DOBB, CAPITALISM YESTERDAY AND TODAY 21 (1962) (italics in original).

Business no longer is dominated by the small, individually owned firm, but by the giant corporation,[267] which controls so large a share of the market that it can, within fairly wide limits, set its own prices without typical market considerations.[268] And as much as the small business, the large corporation is profit oriented[269]—striving for ever larger profits and, because of its influential market position, achieving them.[270]

State ownership of utilities would not transform either *laissez-faire* or monopoly capitalism into socialism. As previously noted, under capitalism most, but not all, of the means of production are privately owned. Government ownership of utilities would leave most of the means of production (land, machines, factories, and raw materials[271]) in the hands of individuals. Assuming all utilities were government owned, at most this would resemble state capitalism—an economy in which the government owns large numbers of fundamental industries, but in which a small class, the capitalists,[272] dominates the government.[273]

Socialism, on the other hand, means not only that the means of production are publicly owned, but also that they are managed by the public for the benefit of the public—not for the benefit of a small class of people.[274]

> The motive of production is no longer the maximisation [*sic*] of profit: it is the maximum benefit of society. The decision as to what and how much to produce, how many new factories, power stations, etc., are to be constructed, will no longer

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267. The approximately 1,250 companies listed on the New York Stock Exchange accounted for 20% of all workers, 40% of all sales, and over 70% of all corporate income in 1971. L. ENGEL, HOW TO BUY STOCK 51 (5th rev. ed. 3d printing 1972). In 1976, while only .7% of active corporations had assets of $25 million or more, the larger corporations accounted for 83% of total corporate assets. 1980 U.S. DEP'T OF COMMERCE STATISTICAL ABSTRACT U.S. no. 949, at 566. The largest businesses, .1% of all corporations, had $250 million or more assets and controlled 65.8% of all assets of American corporations. *Id.*

268. P. SWEEZY, *Theory of the New Capitalism*, in MODERN CAPITALISM AND OTHER ESSAYS 67 (1972).

269. According to one empirical study, large corporations are more profit oriented than small businesses. Earley, *The Impact of Some New Developments in Economic Theory*, 1956 AM. ECON. A. PROC. *passim* (1957).

270. Less than one-tenth of 1% of all industrial corporations accounted for over 65% of all industrial net income less deficit. 1980 U.S. DEP'T OF COMMERCE STATISTICAL ABSTRACT U.S. no. 950, at 567. In 1979 those manufacturing corporations with assets of $1 billion or more took in 62.6% of all net profit earned by manufacturing corporations. *Id.* no. 955, at 569.

271. L. HUBERMAN & P. SWEEZY, INTRODUCTION TO SOCIALISM 23 (1968).

272. State capitalism, if occurring under present conditions, would take the form of state monopoly capitalism, in which monopoly capitalists would dominate the government.

> [A]t a stage of history where such a high concentration of economic power is reached as is the case under monopoly capitalism, the State machine becomes an instrument of the dominant monopoly groups . . . .
>
> . . . To say that the State is an instrument of monopoly and tends to further its interests even when these conflict with that of other capitalists is not to exclude the possibility that the State may at times pursue policies that operate in the interest of the *system as a whole*—in the sense of trying to keep capitalism as a mode of production operating on an even keel. . . . To the extent that the State takes measures to ensure the latter, it may temporarily appear in the role of an "independent" mediator, "reconciling" sectional interests within the ruling class, or even at times of acute class tension seeking to mollify antagonism between classes and to "reconcile" them.

M. DOBB, CAPITALISM YESTERDAY AND TODAY 77–78 (1962) (emphasis in original). *See generally* N. POULANTZAS, CLASSES IN CONTEMPORARY CAPITALISM (1975).

273. H. LAIDLER, SOCIALISM IN THOUGHT AND ACTION 195 n.10 (1920).

274. L. HUBERMAN & P. SWEEZY, INTRODUCTION TO SOCIALISM 61 (1968).

> be limited by the consideration of whether these will yield sufficient profit to the capitalist: such decisions will be made solely in the light of the usefulness of such things to society (the cost to society of producing them, of course, also being taken into account).[275]

Even if government ownership of utilities provides cheaper and better service to consumers, it does not necessarily change the relation of utility workers to their employers or obviate the danger that a small ruling class will pervert the benefits of public ownership.[276] Thus, government ownership of utilities should neither conjure up images of the "red plague" in the eyes of staunch capitalists, nor spur unrealistic hopes in the hearts of socialists.

Government involvement in and regulation of business has been accepted since the early days of America.[277] Government provision of seed money for new ventures—for example, the railways in the first half of the nineteenth century or the synfuels industry at present—was and is welcomed by the business community.[278] And examples exist besides municipally owned utilities of direct government ownership of business or management of business-like operations: the Army Corps of Engineers, the Interior Department's Bureau of Land Reclamation,[279] Wisconsin's State Life Fund, the Bank of North Dakota, the Port Authority of New York, the Tennessee Valley Authority, and the U.S. Postal Service.[280]

In the United States public involvement in private enterprise usually occurs only when an enterprise no longer is profitable to private capitalists (*e.g.*, Amtrak) and yet is necessary to the maintenance of commerce (*e.g.*, the Postal Service, whose rates subsidize businesses more than individuals[281]). Alternatively, when the government completes its task of bolstering or developing an industry, such as synthetic rubber, the healthy industry is transferred into private hands at bargain prices.[282] Considering with what resources and industries government enterprises are working and under what circumstances they are operating, government-managed enterprises are doing surprisingly well.

2. *Public Versus Private Ownership*

Public ownership of utilities is a viable and proven alternative to private ownership. In 1970 there were approximately 400 investor owned electric utilities, 2,065 publicly owned utilities (5 of which were federal systems), and

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275. M. DOBB, ECONOMICS OF CAPITALISM 24 (1942).

276. *See* THE BATTLE OF CLEVELAND *passim* (D. Marschall ed. 1979); H. LAIDLER, SOCIALISM IN THOUGHT AND ACTION 198-99 (1920).

277. *E.g.*, limitations on crop production, oil industry regulations, and food and drug laws. *See generally* S. PRESSER & J. ZAINALDIN, LAW AND AMERICAN HISTORY 260-62 (1980).

278. A. SHONFIELD, MODERN CAPITALISM 298-329 (1969).

279. *Id.* at 323.

280. M. CARNOY & D. SHEARER, ECONOMIC DEMOCRACY 65-70 (1980).

281. *Id.* at 65.

282. *Id.* at 63-64.

955 Rural Electrification Administration (REA) cooperatives.[283] In 1980 there were approximately 217 investor owned electric utilities, 2,199 publicly owned utilities (8 of which were federal systems), and 924 rural electric cooperatives.[284]

One of the benefits of public ownership is a lower cost to the consumer. In 1980 the average annual residential electric bill for an investor owned utility customer was 457 dollars,[285] compared with 405 dollars for a customer of a municipally owned utility.[286] The difference in bills—52 dollars—is even more impressive because the larger investor owned utility bill represented only 8,531 kilowatt hours,[287] while the lower municipal bill represented 10,744 kilowatt hours.[288] The cost of electricity to investor owned utility customers was over 42 percent more—5.36 cents per kilowatt hour[289] compared to the publicly owned utility's 3.77 cents per kilowatt hour.[290] In 1976 administrative expenses of municipal utilities were approximately one-third lower than for investor owned utilities.[291] In 1980 municipally owned utilities continued to have lower administrative expenses per customer than privately owned utilities.[292] Publicly owned utilities consistently have lower accounting, collection, customer service, information, and sales expenses per kilowatt hour sold than privately owned utilities.[293]

Statistics on the cost savings to consumers should be examined fully when citizens and legislatures begin to explore public ownership. Some of the arguments discrediting the cost savings of public ownership are dismissed easily. One argument is that publicly owned utilities are able to provide energy at a lower cost because they do not pay taxes. Private utilities, how-

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283. SUBCOMM. ON ENERGY & POWER, COMM. ON INTERSTATE & FOREIGN COMMERCE, 94TH CONG., 2D SESS., STATISTICAL MATERIALS ON THE ELECTRIC UTILITY INDUSTRY 5 (1976).

In 1980 privately owned utilities accounted for 78% of all electricity generated in the United States, federal projects for 10.3%, municipal utilities for 3.8%, and cooperatives for 2.8%. PRIVATELY OWNED ELECTRIC UTILITIES, *supra* note 184, at 15. Other publicly owned systems, such as state systems, accounted for 5.2% of all electricity generated. *Public Power Directory*, PUB. POWER, Jan.–Feb. 1982, D-1, D-2.

In 1978 federal utilities had slightly over 13,000 customers (retail and wholesale), municipal utilities had slightly more than 8.5 million customers, and privately owned utilities had over 67 million customers. ENERGY INFORMATION ADMIN., U.S. DEP'T OF ENERGY, STATISTICS OF PUBLICLY OWNED ELECTRIC UTILITIES IN THE UNITED STATES—1978, at 15, 20 (1979); PRIVATELY OWNED ELECTRIC UTILITIES, *supra* note 184, at 34. By 1980 publicly owned systems of all types served almost one-fourth of all electric customers. *Public Power Directory*, PUB. POWER, Jan.–Feb. 1982, D-1, D-4.

284. *Public Power Directory*, PUB. POWER, Jan.–Feb. 1982, D-1, D-4.

285. PRIVATELY OWNED ELECTRIC UTILITIES, *supra* note 184, at 35.

286. Kilmer, *Public Power Costs Less*, PUB. POWER, May–June 1982, at 26 (based on data from the Department of Energy's Energy Information Administration).

287. PRIVATELY OWNED ELECTRIC UTILITIES, *supra* note 184, at 11.

288. Kilmer, *Public Power Costs Less*, PUB. POWER, May–June 1982, at 26.

289. PRIVATELY OWNED ELECTRIC UTILITIES, *supra* note 184, at 35.

290. Kilmer, *Public Power Costs Less*, PUB. POWER, May–June 1982, at 26.

291. *Shorts*, POWER LINE, Aug. 1979, at 2.

292. PRIVATELY OWNED ELECTRIC UTILITIES, *supra* note 184, at 34, 38; ENERGY INFORMATION ADMIN., U.S. DEP'T OF ENERGY, STATISTICS OF PUBLICLY OWNED ELECTRIC UTILITIES IN THE UNITED STATES—1980, at 7 (1981).

293. Kilmer, *Public Power Costs Less*, PUB. POWER, May–June 1982, at 26, 27–28 ("Customer service, information, and sales" formerly was listed by the Department of Energy as "promotion and advertising.").

ever, pay little or no tax because of investment tax credits and accelerated depreciation. In 1971 utilities paid 6.2 percent of their revenues in taxes.[294] In 1980 federal income tax paid was only 1.3 percent of electric operating revenues.[295] With section 201 of the Economic Recovery Tax Act of 1981[296] creating Internal Revenue Code section 168[297] to accelerate depreciation even more, investor owned utilities will be paying still less of their revenues to the government. In contrast, public power systems often provide free street light or other municipal services, including direct contributions to a town's general fund, in lieu of taxes.[298]

Some of public power's cost savings may be the result of access to low-cost federal and state hydroelectric power,[299] but these savings do not account for the entire cost difference. Privately owned systems also have access to hydroelectric power.[300] Furthermore, while geography places limits on the choice of hydroelectric technology, the same is not true of the choices between nuclear power, coal generation, solar power, cogeneration, or conservation. One more likely may look to public power's efficiency (for example, in holding down administrative expenses) and its lack of stockholders for the principal bases of public power's cost savings.

These cost savings are not the only considerations in the investigation of public ownership. Whether shareholders are a necessary and functioning party in the provision of utilities is another consideration. In this Comment's examination of CWIP and other methods of ensuring sufficient capital infusion to utilities, shareholders were found to be potentially excludable from capital-acquiring arrangements.[301] Shareholders earned profits on money supplied by consumers[302] or asked for and received double profits on money they supplied.[303]

The debt-to-equity ratio of privately owned utilities appears to have been relatively stable over the years, with utility prices rising.[304] As long as utilities must borrow money and pay for it, public ownership has a definite advantage

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294. Love, *Reddy Kilowatt's Dark Hour*, PROGRESSIVE, Dec. 1974, at 47, 50; *see also* AMERICAN PUB. POWER ASS'N, THE PUBLIC BENEFITS OF PUBLIC POWER 12 (1980) (In 1978 privately owned utilities paid approximately 6% of their net income in federal taxes, although the corporate tax rate was 46%.).

295. PRIVATELY OWNED ELECTRIC UTILITIES, *supra* note 184, at 33.

296. Pub. L. No. 97-34, § 201, 95 Stat. 172 (1981) (codified at 26 U.S.C. § 168). This law dramatically accelerated depreciation schedules for utilities. Property that in the past had a tax life of more than 25 years now has a tax life for depreciation purposes of only 15 years. Utilities will receive larger deductions from taxable income in a shorter period of time.

297. I.R.C. § 168 (Supp. V 1981).

298. CONGRESSIONAL RESEARCH SERV. FOR THE HOUSE COMM. ON INTERSTATE & FOREIGN COMMERCE, 95TH CONG., 1ST SESS., THE ELECTRIC UTILITY SECTOR: CONCEPTS, PRACTICES, AND PROBLEMS 47 (1977). In 1978 publicly owned utilities provided over one billion kilowatt hours free of charge. ENERGY INFORMATION ADMIN., U.S. DEP'T OF ENERGY, STATISTICS OF PUBLICLY OWNED ELECTRIC UTILITIES IN THE UNITED STATES—1978, at 17 (1979).

299. Public Power Fact Sheet by the American Public Power Association (May 1982).

300. PRIVATELY OWNED ELECTRIC UTILITIES, *supra* note 184, at 13.

301. *See supra* text accompanying notes 159–60.

302. *See supra* note 177 and accompanying text.

303. *See supra* notes 169–76 and accompanying text.

304. *See supra* text accompanying notes 33–35 & 178.

over private ownership because the government can incur debt at a much lower interest rate. Municipal utilities can offer revenue bonds to raise capital. The interest on these bonds is tax free; thus, the utility can offer the bonds at a lower interest rate to reduce its costs,[305] while providing investors with post-tax returns competitive with those of bonds offered by the private sector. The same tax-free bonds can help to take over a privately owned utility. Provisions can be made to buy shareholders' equity interest, for example, through the floating of bonds or through an arrangement to buy out shareholders gradually from the net revenues realized by the utility.[306]

Another consideration in opting for public ownership is that the profit motive severely hampers and is in conflict with the provision, in the public interest, of a basic necessity. The shareholders' desire to increase earnings through rate base inflation has led to excess capacity and to the choice of capital-intensive technology. Consumers, environmentalists, and labor have an interest in keeping the rate base to a minimum through conservation, repair, investment in more labor-intensive technologies, and the elimination of incentives to overexpand, such as CWIP. The self-interest of the public in the elimination of CWIP is paralleled by the self-interest of publicly owned utilities. While the reasons that municipally owned systems oppose CWIP differ somewhat from those of customers,[307] what is important is not that each reason behind the self-interest be identical, but that, whatever the reason, the self-interest of publicly owned utilities is aligned more closely with the self-interest of customers than is the self-interest of shareholders. Further, the community can set the goals of a publicly owned utility[308] and can make basic decisions, such as a plant location and rate of expansion. The community can make these decisions in public forums or can hold those people that make these decisions electorally accountable.[309]

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305. AMERICAN PUB. POWER ASSOC., THE PEOPLE'S RIGHT TO CHOOSE 6–7 (1974).

306. Care should be taken to avoid overcompensating shareholders. It is questionable whether any compensation should be made to General Public Utilities and Jersey Central Power & Light (of Three Mile Island fame). Compensation would be a state salvage of poor shareholder and managment judgment. Rather, commentators have suggested that the company be permitted to go bankrupt, the state then assuming the utility's service function. *See* Grygiel & Zarillo, *Three Mile Island: The New Jersey Regulatory Response*, PUB. UTIL. FORT., Dec. 18, 1980, at 23, 27; N.Y. Times, Feb. 28, 1982, § XI, at 3, col. 3 (utility receptive to idea of state takeover).

307. Municipally owned systems opposed CWIP because it provided no incentive to investor owned utilities to conserve resources. Thus, investor owned utilities had no incentive to interconnect with public systems. Municipal systems, which are often wholesale customers of investor owned utilities, also complained that CWIP forced them to carry both the cost of privately owned utility investment and their own investment. CURRENT ISSUES, *supra* note 101, at 84–86.

308. The questionable nuclear power thrust of the Tennessee Valley Authority (TVA) comes more from its original purpose of power production to stimulate private enterprise in the region than from its public character. If the goal of the TVA was changed from developmental to environmental, its thrust would be away from nuclear power. M. CARNOY & D. SHEARER, ECONOMIC DEMOCRACY 66–68 (1980).

309. COMMUNITY OWNERSHIP ORGANIZING PROJECT, THE CITIES' WEALTH 32 (1976); M. CARNOY & D. SHEARER, ECONOMIC DEMOCRACY 241 (1980).

Election of public utilities commissioners is not the equivalent of democratic reform through the public ownership of utilities. If private capital is used, public utilities commissioners, elected or not, must regulate utilities with the goal of producing profit for those utilities. Thus, election of utilities commissioners is a placebo for the underlying economic ills of private ownership.

Public accountability can shield against government officials who are too friendly with the local construction industry or with a privately owned utility company that wants the service territory of the municipal system.[310] The ability to vote the managers or their supervisors out of office creates an element of public control unachievable even with elected utility commissioners. While elected commissioners must battle profit-oriented utilities and regulate rates within *Hope*'s profit-protecting guidelines, government officials managing or supervising publicly owned systems only need be concerned with providing utility service at the lowest possible cost, not with protecting and, at the same time, restraining profits.

Publicly owned systems to some extent will be subject to the whims of the bond market including large institutional investors, such as banks. If private investors attempt economic blackmail, publicly owned systems could consider bond offerings accessible to their customers, for example, offerings in smaller denominations. Alternately, the utility could spearhead a movement for the governmental unit of which it is a part to establish a community bank[311] or a state bank[312] to ensure that sufficient capital is available for endeavors beneficial to the public.

Public ownership need not be limited to electric utilities. Gas, water, and telephone utilities also are legitimate and viable subjects for public ownership.[313] Legislative bodies should open the debate on whether shareholders are performing their function as capital providers satisfactorily or whether they have outlived their economic usefulness in the utility industry. Proponents of public ownership will have to stage hard-fought and well-organized campaigns to stimulate serious consideration of their proposals.[314] But since all utility customers benefit from public ownership—and nearly everyone is a customer of at least one privately owned utility company—enlightened self-interest eventually will alter the face of the utility industry.

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310. *See* THE BATTLE OF CLEVELAND *passim* (D. Marschall ed. 1979).

311. COMMUNITY OWNERSHIP ORGANIZING PROJECT, THE CITIES' WEALTH 37–38 (1976); Lee, *National Consumer Cooperative Bank*, BLACK ENTERPRISE, Jan. 1981, at 38; *What the Coop Bank Can Do In Energy*, CO-OP BANK MONITOR, May 1980, at 8.

312. M. CARNOY & D. SHEARER, ECONOMIC DEMOCRACY 69–70, 124 (1980).

313. There are nine municipal telephone systems remaining in the United States and Puerto Rico. COMMUNITY OWNERSHIP ORGANIZING PROJECT, THE CITIES' WEALTH 34–35 (1976).

314. Attempts to municipalize Pacific Gas & Electric Company in Berkeley, California, were fought at every turn. Although the issue was raised yearly before the city council, it was not until the sixth year, 1971, that the council agreed to commission a feasibility study of public ownership. When placed on the ballot in 1973, utility and corporate allies heavily outspent public-power proponents and also gave large contributions to those candidates opposed to the measure. The ordinance was defeated 42% to 58%. The next year, while again vastly outspent, the proponents gained support and won 47.5% of the vote. *Id.* at 33.